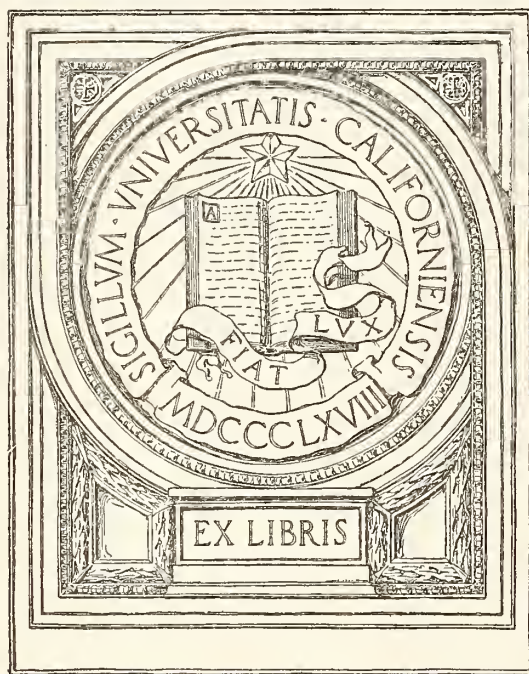
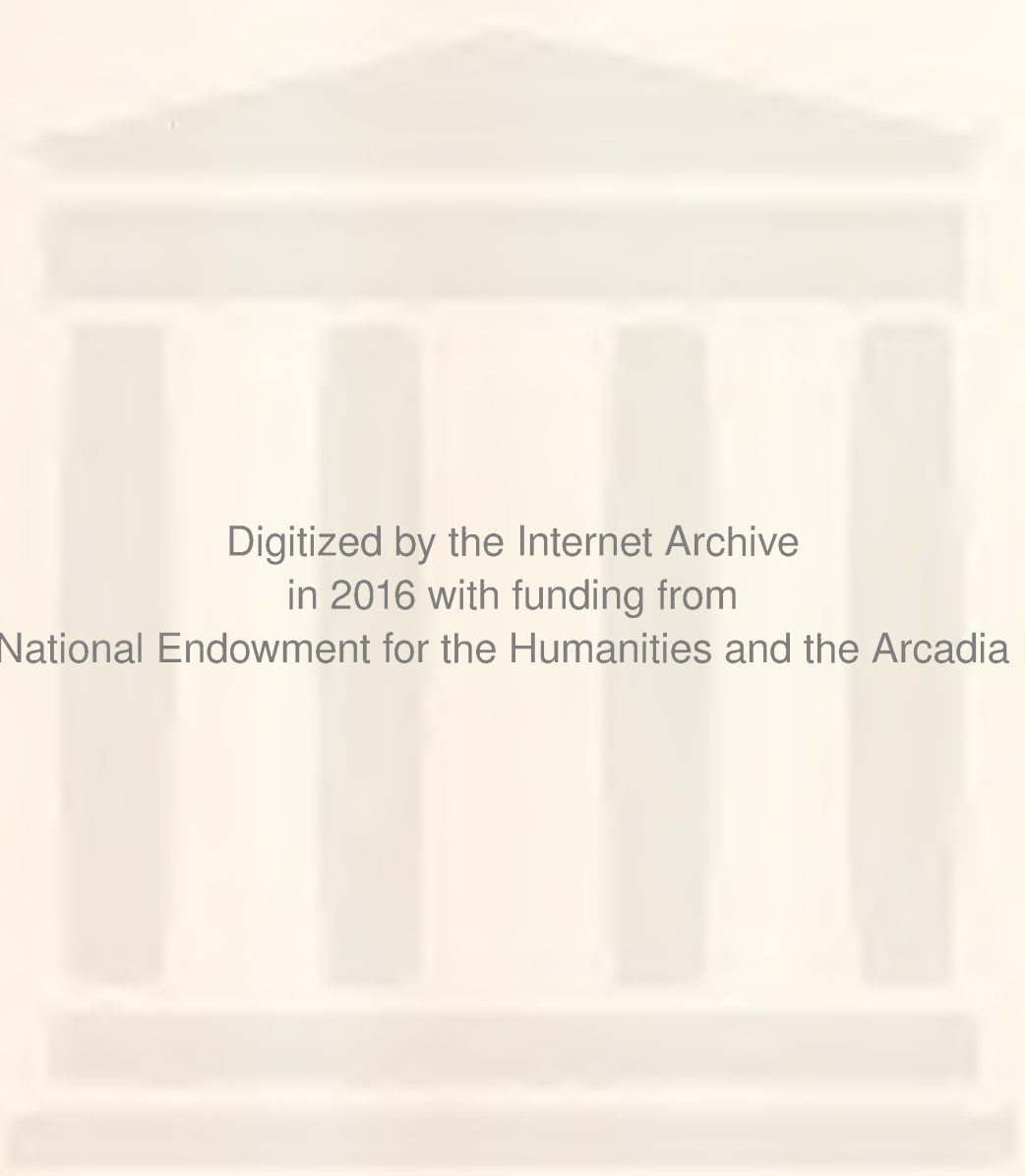


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JANUARY TO DECEMBER, 1922

FREDERICK C. WARNSHUIS, M. D., F. A. C. S.

EDITOR

GRAND RAPIDS, MICHIGAN

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No. 1

Original Articles

THE LUMINAL TREATMENT OF EPILEPSY

JAMES M. STANTON, M. D.
DETROIT, MICH.

Among the patients that present themselves to the neurologist few can be found more common or more interesting than that great group characterized by recurrent convulsive seizures of a more or less stereotyped nature to which are given the name—"The Epilepsies."

For the discussion of a type of treatment of a condition as ill defined as this entity; if it may be called an entity it would seem wise to first make clear the type of treated case from which my conclusions are drawn. At the present time epilepsy may best be regarded as a symptom, the result of an increased excitability of the cerebral cortex from stimuli of exogenous or endogenous origin.

It is obvious in view of this situation that the treatment of the condition must be based upon either the removal of the sources of the stimuli; or, of a lowering of the cortical threshold of excitability. It is obvious that the ideal method would be the removal of the sources of the stimuli. However, in a large proportion of the number of patients showing this disorder, the sources of stimulation are impossible of detection by our present means of physical and functional examination. It is largely in this group of patients that I have used luminal. There remains, also, a certain number of cases where the source of the stimuli is discoverable, but in which it is not possible to remove or effect the source of the excitation.

From this it is obvious that the therapeutic approach to a relatively large group of patients suffering with this disorder must depend upon measures that lower the threshold of cortical excitability. Up to within a comparatively short time, the posi-

tion of importance in this endeavor has been accorded the various preparations of bromide.

In 1912 Alfred Hauptman⁽¹⁾ reported the treatment of a series of cases of rather severe epilepsy with a new drug—Luminal. He was very favorably impressed with the use of this substance and reported no injurious by-effects of any kind after months of daily administration of this drug. Kut-zinsky⁽²⁾, Fuchs⁽³⁾ and Debrowski⁽⁴⁾ in 1914 reported separate series of cases treated with the drug. They all had observed either marked reduction in the number, or complete cessation of the seizures. Fuchs, however, spoke of the seizures recurring with greater frequency after withdrawal of the drug. Grinke⁽⁵⁾ in a discussion of a paper by Dercum in 1916 was the first in this country to mention the use of Luminal. Dercum⁽⁶⁾ in 1919 reported upon the use of the drug. He found that one and one-half to two grains of luminal given daily almost uniformly controlled or inhibited the seizures.

Grinke⁽⁵⁾ reported in 1920 his experience with over one hundred cases of epilepsy treated with this drug. He has found that luminal in doses of one and one-half to two grains, once or twice daily, is capable of causing an arrest of convulsions in epilepsy. Some of his patients have been free from attacks for three to four years. He has observed no harmful effects from the long continued administration of this drug. He is thoroughly convinced of the superiority of luminal over the bromides in the treatment of these cases.

Kirk⁽⁷⁾ presented a report of two hundred cases of epilepsy treated with luminal at the Arkansas State Hospital for Nervous Diseases. He reports an immediate decrease in the number of seizures in all cases and a complete cessation of the seizures in a large number of the cases. He remarks that no bad effects were observed on the kidneys, stomach, circulation, temperature and respiration. There is no evidence, he feels, to

show that the use of this drug is habit-forming. In some cases he found it to be effective in 24 to 48 hours, in other cases only after a week or more.

Sands⁽⁸⁾ has recently reported a study of 86 female psychotic epileptic patients at the Manhattan State Hospital, Wards Island. Sands used the luminal-sodium preparation usually in doses of three-fourths of a grain three times a day. A very good impression of the efficacy of this drug can be obtained from a comparison of the total number of seizures in May, 1919, when the drug was not used, with May, 1920, when it was in use. There were 502 recorded seizures in May, 1919, while in May, 1920, there were only 8 recorded seizures. Over 60% of the patients in the ward May, 1920, were there in May, 1919. There was also a very definitely favorable influence on the menstrual function of the patients.

LUMINAL

Luminal is a white, odorless, and somewhat bitter powder that is virtually insoluble in cold water. Chemically, luminal is phenyl-ethyl-barbituric acid. It is therefore closely related to veronal which is diethyl-barbituric acid. The sodium compound of luminal, luminal-sodium, is a white crystalline, hygroscopic powder very easily soluble in water. Aqueous solutions decompose rather rapidly, and should not be kept over one week. Luminal can be obtained in 1½ gr. tablets and in the powder form. Luminal-sodium can be obtained only in the powder form.

METHOD OF ADMINISTRATION

The use of this drug is usually begun by having the patient take 1½ grains of luminal each night. The drug is usually prescribed in capsule form or in papers, the patient being directed to dissolve the contents of one in hot milk and to take just before retiring. It has also usually been my custom to prescribe bromide for a short period at the beginning of the course of treatment with luminal. In this connection I usually have the patient take either a dram of Elixir Sodium Bromid three times daily; or, one of the Triple Bromid Tablets, grains 7, three times daily. It has been my experience that those cases in which bromid is combined with the luminal at the outset do much better than those in which the luminal is used alone.

The patient is usually instructed to return in three to five days. If at this time it is found that the seizures are being controlled, or, if no seizures have occurred, the

size of dose is allowed to remain the same. If on the other hand seizures have been as frequent as before, the dose is increased. In no case has more than 3 grains been given at a single dose; nor has the dose been repeated more than twice in the 24 hours. If a quite rapid effect is desired, it is possible to use the luminal-sodium preparation in a 20% solution subcutaneously.

It has been my experience that with many of the patients that after a month or six weeks the dose may be reduced in size without recurrence of the seizures. In some cases, however, the drug seems to lose a portion of its efficacy, and the dose must be increased somewhat. After the dosage has been established to satisfaction, the patients are seen at three to four-week intervals.

THE RESULTS OF LUMINAL THERAPY

In the past two years I have had the opportunity of treating approximately 100 cases occurring in private practice and at the neurologic clinic of Harper Hospital and Children's Free Hospital with this drug. In no instance, with possibly one exception to be mentioned later, has there been any bad results. In no instance have the seizures increased in frequency. In practically all cases there has been a diminution in either the number or severity of the seizures, and in many instances the seizures have disappeared. The report of a fairly typical case is as follows:

CASE 1—E. McF. Married, housewife, age 36. The patient was first seen September 2, 1920, and gave this history: No nervous or mental disease or epilepsy in the family. Birth was normal. Developed normally. Had measles, chicken pox and pneumonia. Never had any spasms as a child. Married at 19. Five pregnancies, one living child. Has never had any severe injuries.

There is an indefinite history of a "fainting attack" about 15 years ago while pregnant. About seven years ago she began to have definite grand mal seizures which were preceded by an aura and in which she frequently fell and injured herself, and lost control of the bladder. In general it may be said that she had these attacks about twice each week. In 1915 and again in 1917 there was a period of two weeks in which she was stuporous, disoriented and had delusions. Her memory became very poor after the onset of the present trouble. The longest interval without a spell had been three months.

Examination showed a rather frail woman who otherwise physically seemed quite normal. She had, however, the rather typical facies of an epileptic. Her memory was exceedingly poor. She could not recall whether she reached the office by street car or automobile. The neurological examination was quite negative except for some blurring of the optic disc edges. X-Ray plates of the head and the blood Wassermann were negative.

She was placed upon luminal grains, two each night, and Elixir Sodium Bromid, 1 dram after

each meal. The bromid was soon discontinued. On October 23rd she developed a rather generalized fine maculo-papular rash. The luminal was discontinued and on November 7th she had a seizure. On November 16th luminal was started again and has been continued up until the present time. A note made December 2nd says that the family are decidedly of the opinion that, the patient's memory is tremendously improved. On January 29th it is noted that the patient ran out of medicine on Tuesday and did not have the medicine refilled. On the following Friday she had two severe seizures. This case serves as a rather typical example of what I have encountered in treatment with luminal. Admittedly not all patients are benefited to such an extent.

The report of the single patient in which a bad result seemingly followed upon the use of luminal, whether it may be said to be due to the luminal or not, is as follows:

CASE 2—R. C., male, age 17, student. This patient was first seen November 26th, 1920. The presence of nervous or mental disease or of epilepsy in the family was denied. The patient is one of twin children; the other of whom is living and is perfectly normal. The patient was the second of the twins born and is said to have been the weaker. He had so-called "internal spasms" for three to four weeks after birth; but, otherwise was normal. As a child he had chicken pox, tonsillitis, and a bilateral otitis. There is a history of several falls in which the patient struck his head. When about 8 years old he was struck on the head with a baseball bat, but he continued with his play.

When 11 years old he had his first grand mal epileptic seizure. These recurred for several times at intervals of two to three months. The patient was put on bromides which he has continued up until seeing me. While taking bromid he was free from seizures for a period of almost five years. He had continued in school almost up until the time he saw me.

Examination showed a surly young man, who presented a rather typical epileptic appearance and whose attitude was virtually that of not wanting to get well. Physical examination was negative as was the blood Wassermann and X-ray plates of the skull. The neurologic examination revealed increased tendon jerk, ataxia of the hands and slightly blurred optic-disc edges. The patient was put upon luminal grains, two each night, and Elixir Sodium Bromid, one dram after meals.

December 7, 1920, a note was made that the patient was intensely irritable, but had had no seizures.

December 13, 1920, the father stated that he had attempted to run away from home, and had to be forcibly returned. A few days after this he became somewhat unclear, threatened to kill his brother and actually assaulted the father. He was sent to the Psychopathic Ward of the Receiving Hospital, where he remained for three days, at the end of which time he returned home.

About February 1, 1921, he passed into another of these unclear states in which he pursued his brother with a knife, almost breaking down a door to reach him. He was again sent to Receiving Hospital, from which, after a few days, he returned home much as before.

This patient shortly after being put upon luminal treatment first manifested psychic equivalents. Whether these would have appeared if the

luminal had not been given is, of course, impossible to say.

There remains another group of epilepsies in which the seizures are symptomatic of some definitely ascertainable organic condition. Of these symptomatic epilepsies I have had the opportunity of treating but a few. The following record is of a post-traumatic epilepsy.

CASE 3—R. J., male, single, age 24. There is no history of epilepsy or nervous and mental disease in the family. Patient's birth was normal. He was healthy as a child. When 18 years old he was knocked to the ground by a speeding automobile. He was removed to a hospital; and, after two days of unconsciousness, had a cranial decompression. Following this he was aphasic and had to be taught to speak. Five years later he had a grand mal epileptic seizure. Two months afterwards he had three attacks in a single day. He was taken to the Mayo Clinic, but nothing is said to have been done. He shortly had several more seizures and in September of the same year he had a second cranial operation, immediately following which he had several more seizures. These seizures then returned regularly at intervals of three to four weeks. Examination of the patient was negative except for the evidence of the cranial operations and for some thickness and hesitancy in speech which was a residual of the aphasia. The patient was placed upon luminal, and upon bromid for a short time. The patient has now been ten months under treatment, and has had but one seizure and that a comparatively mild one. The family are very much pleased with the results of the treatment, and say that he has neither looked nor seemed so well since before his injury.

Many of those who have previously reported upon the use of luminal have mentioned that with cessation of treatment the attacks return with greater severity than before taking luminal. This in my experience has not been the case, although it is quite true that they frequently reappear shortly after stopping the drug.

SUMMARY

Luminal has been far superior to bromides in the control of epileptic seizures. In doses of approximately 2 grains once daily, it has either modified, diminished or arrested the seizures.

Luminal when accompanied by the bromides in the early stages of the treatment has given better results than luminal alone.

Luminal in doses of 1½ grains daily may be safely given over long periods.

Luminal has caused a pronounced betterment of the mental state of practically all patients.

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DISCUSSION

DR. C. D. CAMP, Ann Arbor: I think Dr. Stanton's paper is a very good one and the subject deserves discussion.

I have used luminal. In my mind it has always been a question of substituting luminal for sodium bromide or the bromides in cases where the patient does not bear bromides well, either because he has skin eruptions from bromides or because his stomach does not stand the bromides or for some other similar reason. I know there is a very considerable benefit from alternating bromides with luminal; **alternating routinely without any special indications.** Give the one drug for one month and the other for another month.

It should be borne in mind, I think, that the modern viewpoint is that this is not a disease, but is rather a syndrome which produces results from a variety of causes and that in every case a cause should be carefully searched for. We should only resort to drugs like bromides and luminal and other sedatives when we have definitely arrived at the conclusion that we can not find the cause and we simply have to manage the case. It does not appear that luminal is a drug which is, strictly speaking, a treatment. It is rather an adjuvant in the management of cases.

DR. R. L. DIXON, Wahjamego: I wish he had gone a little further into the literature covering the other side of the question as it is written up in the literature.

You could have substituted the word barbitol for luminal in Dr. Stanton's paper and it would have read just the same. There have been times during the last 25 years when you could have substituted eight or ten other drugs for the word luminal and could have presented a very proper discussion of the treatment of epilepsy.

Here is one point I think we should consider—that the treatment of epilepsy is not essentially simply and wholly inhibiting and diminishing or decreasing the number of seizures. That may be the last thing you should do to the epileptic patient. But that is the sensational feature. That is the thing the family think of. When the seizure has abated, the family reports that the patient has improved, and we are likely to be misled on that account. I know of many cases of epilepsy where to prevent the seizures is doing that patient no good.

I think this paper on luminal therapy would be very well if we would limit it to the restriction of an epileptic seizure, but not consider it as a treatment process for epilepsy.

Now, I can see cases of epilepsy in which bromides should be used. I can see cases where a number of drugs should be used. I don't know of any cases where luminal should be used.

I believe if Dr. Stanton will read the adverse literature he will find just as dependable men as those he has quoted who will say it is the most pernicious and most destructive drug ever proposed for the treatment of epilepsy. Its specific effect on the patient is in the very line in which the patient's greatest affliction is. **The mere matter of convulsions is not the most important thing in a case of epilepsy.** The matter of having the fit is not the thing that sends the patient to the institution. It is the epileptic's mental makeup and particularly his lack of judgment. He is on his way downhill anyway, and luminal gives him a kick and sends him down farther. Bromides will kick him down hill too, but he will quit sliding sooner after bromides than luminal.

It is my opinion that luminal is to be used very exceptionally in the treatment of epilepsy.

DR. J. L. CHESTER, Detroit: In March, 1920, I attended Dr. Fenger's clinic in Chicago, in which he showed many cases in which the treatment had been luminal. Of course, in each of those cases there had been a thorough study made. Bromides had been tried and they were better and felt better. I remember one case particularly of a barber tending to business three years without a seizure.

Soon after I came home, a patient came to me from Emmett, where I had practiced for a number of years, who had fits for about two years, the patient 18 years old, a high school student. He had to give up work on account of the seizures. After making a careful study of the case, we tried giving a half-grain each night in a glass of milk. His seizures stopped. He felt better and went on with his high school work. This year, the year after he began the treatment, he stopped taking luminal and the convulsions began. So he is again resuming his treatment.

I will relate one more case that has been under treatment about two months. It is a more striking case than any I have seen, even in Dr. Fenger's clinic. I was treating this case for edema and nephritis. As this patient got better, the family said to me, "We have a girl here 13 years old who has had epilepsy since childhood. We have had many doctors treat her. Now she has about seven or eight convulsions a day. Is there anything you can do for her?" I said, "The best thing you can do is to send this child on to Dr. Dixon." They did not want to send her to an institution. They wanted me to prescribe. I prescribed a grain and a half of luminal taken at night in a glass of milk.

The nurse reports to me that she has not had a convulsion for two weeks. This is three weeks ago. She feels better. I think it is a valuable drug in epilepsy.

DR. CONRAD GEORG, SR., Ann Arbor: I have a few words to say on this subject. When Dr. Camp calls the disease a syndrome, of course he is thinking of the general case.

Several years ago, I think it is six years ago, a great surgeon from Cincinnati who has a great clinic, published a work in the *Journal of the American Medical Association* on epilepsy. In his work on the cecum he had been struck with the fact that epileptic seizures had accompanied the case. He did not operate for the epilepsy, but with no practical definite pathological reasons he found that the epileptic seizures ceased. He investigated further. I refer you to the work of Dr. Smith of Cincinnati in, I think, 1916. He isolated a bacillus, calling it the bacillus epilepticus.

Now, we old country doctors and general practitioners—who are doomed to extinction—we used to hold to shotgun doses. Whenever we hear a thing is good, we use it. We can speak before scientific societies as experts showing where we have success.

Now, we have drugs which act by absorption in the alimentary tract. They do not interfere with cell action. They do not destroy the resisting forces of the cell, but they take the germ along.

Now, a year ago a case came under my care of a young lady, 25 years old, who had epileptic seizures from the time of puberty. They kept on regularly along until it terminated in epilepsy and she had regularly three or four heavy seizures during the menstrual period and at other times moderate seizures. Heavy seizures during the menstrual period. She came under my care about a year ago. I placed her immediately under the silicate of aluminum. Aluminum and charcoal as an adjuvant. Because I had used that like water, with no more thinking about it in that class of people. Then I added aluminum. She took two tablets a day. A grain and a half in each tablet.

Now, since last July, about July, I saw her last, last week. This young lady has had not a single epileptic seizure. I would say further when I saw her first the mentality was low. She had no interest in the external world. Her thoughts were confined to herself. Her mentality now is that of a young lady looking out on life ahead. Without any diminution of her functions.

I have treated epilepsy probably as long as any

man in this room. I have seen it stopped under nitrate of silver treatment. I have seen it continue under the nitrate of silver treatment. I have never seen any permanent recovery under the bromides, and I have used the bromides heavily. I have used them until we had bromide acne.

I think with luminal it does not act like bromide in subduing the mental function. The mental function is active and alert, and I believe it is the treatment of the day. Now, as to the action of the silicate of aluminum, what effect it has and what should be attributed to the luminal, I can't say, because they are both used.

DR. C. B. STOCKWELL, Port Huron: I arise to the idea of emphasizing the use of that drug in certain cases. At one time I had a case of epilepsy in which the prognosis was given as utterly hopeless. Some 10 or 12 seizures a day in a child five years old. The parent said he would rather have the child die than grow up in such a state as he was then in. I had just had my attention called to the fluid extract, and I said if you are willing that I should push this remedy, I would be glad to do it. He gave me the authority. The dose was given as five to 15 drops. We kept increasing that dose three times a day until he got up to one ounce and a half. As I increased it up to that point, the conditions improved. When I got to that point the seizures were so few, I gradually reduced the amount and he became permanently well. That was some 15 years ago. The last seizure must have been all of 20 years ago. The mentality was preserved. The boy is a bright, energetic young man.

I feel that some times those drugs we take empirically, put down as just so many drugs—we should push them under such circumstances, push them to the extreme.

It stopped the seizure. I think it is just as well to keep that in mind, that some times we can get results by increasing doses.

DR. N. H. JACKSON, Wehjemago: From the case just cited by the doctor, it makes me conclude that the patient did not have epilepsy. After three and one-half years of constant work, having dozens under my care daily and doing considerable work along that line, I have come to the conclusion that epilepsy is the most incurable of all mental diseases.

We must not lose sight of the fact that every case which has convulsions is not an epileptic, and that every case of epilepsy may not have convulsions. We have a number of epileptics in our institution who never had a convulsion. And they are just as epileptic as when they are having seizures every day. The mental condition is the true guide to a diagnosis of epilepsy from my point of view. I believe that the less drugs we give these people to control their seizures, the better it is for our patients.

Also, the patients who come to our institution, who have been taking drugs constantly, make us a lot of trouble for a time, until we get them to live without drugs. In the last three and one-half years, I have used less than five pounds of bromides. It would be a small amount for a practitioner in general practice. I use it at times when a dose of bromides is good for an epileptic or a dose of some other sedative, just as you give it to a case in general practice when it is indicated.

Our patients, most of them, improve. The condition in general, and the number of seizures are less, without bromides. By proper regulation of food and proper hours of sleep and the general regulation of their living.

I don't think any physician should ever kid himself to think he has cured a case of epilepsy, if it was really epilepsy, and if they have fits.

DR. P. N. LEECH, Chicago: The essayist brought out the fact that luminal was closely related to veronal. Veronal is, of course, the proprietary name. It may be of interest to know the difference. One is simply phenyl-ethyl-barbituric acid and the other is di-ethyl-barbituric acid.

This leads me to comment on whether or not it is safe to say that luminal is not habit-forming. The same claim was made for veronal when it was

brought out. At present veronal can not be sold as such in England. It would be very strange if luminal would not become a habit-forming drug, too.

I would like to ask Dr. Stanton whether he has looked up any real evidence of the fact of the habit-forming qualities of luminal as compared with those of veronal.

DR. J. M. STANTON, Detroit, (closing): Dr. Camp says he thinks luminal may be considered as veronal. I think the difference between those is largely a matter of choice of words. He also spoke of alternating bromides and luminal. I have had no particular experience, and really can't say anything about it. **Bromides combined with luminal, I have decided, gives better results than luminal alone.**

With regard to the question of luminal not being a treatment for epilepsy, it is rather difficult to know how to deal with that sort of proposition. **After all, the seizures are the main outstanding objection to the condition.** If we are going to use any methods to control these, it would be simply fair to treat them for this condition.

I think Dr. Dixon, in his discussion, takes the more or less typical attitude of the institutional man in regard to the management of epileptics. **After all, the convulsive seizures in about 95 per cent of the cases is the main thing that stigmatizes the epileptic as an epileptic, as judged from the men about him.** From a pure etiological attitude there may be a question, but we all don't have an institution where we can have our epileptics have their seizures. The family complains about the seizures and the patients complain about them. After all, if we can relieve the seizures in those cases, I think we have done a tremendous amount of good.

Dr. Leech thinks, perhaps 10 years from now luminal will be a habit-forming substance. Perhaps it will. I am only telling my experience. I do not offer it as a remedy in all cases.

In regard to Dr. Leech as to the habit-forming elements in using luminal. It is quite true that veronal is habit-forming. **Because luminal has a chemical formula similar to veronal does not prove anything.** Morphine and apomorphine have somewhat similar chemical formulae. I know of no case where these patients that are receiving luminal have acquired the habit. They may have had the habit forced upon them.

PERFORATING GASTRIC ULCERS

V. L. TUPPER, M. D.
BAY CITY, MICH.

Gastric ulcers are common lesions. English and German investigators have found them to exist in five percent of people dying from all causes. Scholl in 3,467 autopsies, found healed and unhealed gastric and duodenal ulcers in 17 per cent.

Yet comparatively few of the many who suffer with this complaint are treated for it. The trouble and expense necessary to put a patient to in order to prove the existence of a gastric or duodenal ulcer, has, I believe, been the greatest factor in the neglect of this malady on the part of the profession, and not ignorance on the part of physicians as to the methods.

Twenty-four to 26 percent of gastric and duodenal ulcers perforate according to the Rochester clinic, but how many of the sudden deaths in people on whom autopsies

are not held, are due to perforating ulcers may never be known. We believe, many.

Gastric and duodenal ulcers are found in large surgical clinics to be more common in men than women in the proportion of 75 to 25. In women they exist more often between the age of 25 to 40 and in men between 40 and 60, but they may occur at any age.

This type of ulcer is found wherever the acid chyme of the stomach reaches—the lower end of the oesophagus, the stomach and the duodenum. It is located in 90% of cases in the lesser curvature of the stomach and the first part of the duodenum. They vary greatly in size, diameter and thickness. In the duodenum the ulcer is generally small and most often very near the pylorus and on the anterior wall. In the gastric wall the lesion may be from microscopic size to six inches in its greatest extent. The thickness of a perforating ulcer may be but little or no greater than that of the gastric wall and it may be an inch and a half thick. Their thickness and irregular contour lead the operator often to believe that they are malignant as a percentage of them, of course, are.

As clinically perforating gastric and duodenal ulcers present practically the same symptoms and the same indications for treatment they will both be included in our discussion.

The acutely forming and perforating ulcer is usually small and the hole in it looks as though it were punched out.

The chronic, thick, callous form of ulcer perforates by extension of its crater, which is situated where its blood supply is poorest and its resistance to the digesting enzyme least. This may be at its center or near its edge and the opening of the perforation may be of any form and size. Balfour contends that all callous or cronic ulcers are perforating, for by removing the peritoneal coat and a little or more tissue the crater of the ulcer is met with. He treats them all as perforating ulcers, by cauterizing the crater well, and stitching and inverting.

Those most prone to perforate are those situated on the free anterior wall, where the motility of the stomach does not allow of adhesions to contiguous structures.

The gastric muscularis offers considerable resistance to perforation, and the majority of ulcers go no further, but infection or increasingly poorer blood supply and often trauma lead to extension of the crater through the wall.

There are two main types of ulcer that

perforate. First, those that have formed acutely and extend rapidly through all coats of the stomach. These ulcers often give no symptoms till perforation occurs. They are often multiple and two or more may perforate at the same time. We have had two of this type in young men under 30 years. The openings through the wall were clean and about the diameter of a 32 and a 38 bullet, and the edges of the ulcers were but little thicker than the gastric wall.

Second, those that perforate late in their course when more or less thickening and cicatrization has taken place.

These callous ulcers may again be classified into those that perforate acutely and freely discharge the gastric content and those that perforate slowly causing a perigastritis and adhesions or cause abscess. The adhesions may bind the stomach or duodenum to the liver gallbladder, colon or intestines. The perforation may extend into any of these organs or an abscess caused by the perforation may burrow into the gall-bladder, causing septic cholangitis, into the hilus of a kidney causing pyelitis or into the colon or intestine. Such an abscess may burrow through the diaphragm and pleura causing pyopneumothorax, pneumopericarditis or mediastinitis. These abscesses have burrowed down behind the peritoneum into the pelvis and even through the abdominal wall.

The possibility of perforation of an ulcer on the anterior wall of the stomach and duodenum is much greater than on a part of the wall lying adjacent to other structures.

The patient who suffers an acute perforation does so, usually after a heavy meal and some exertion as coughing and sneezing or from a blow on the abdomen. The epigastric pain is intense, he falls or throws himself down writhing in agony, becomes livid or pale, the skin clammy, the pulse rapid, but this in some, becomes very slow; vomiting may occur with bloody vomiting and the act greatly increases the pain as does coughing or taking a deep breath. He wishes to remain in one position and not be disturbed. The abdomen is rigid. With a stethoscope the gurgling of fluid through the opening may at times be heard.

The diagnosis of the case at this time is easy and especially, if there is a history of previous stomach trouble.

Later the patient becomes much more comfortable. The pulse and temperature may be normal and now a physician visiting him may not be impressed with the seriousness of the condition. Here the board-

like rigidity of the abdominal wall is the most prominent symptom and its significance should be heeded and the case referred to a surgeon at once as general peritonitis rapidly follows. The abdomen distends, liver dullness may be absent, vomiting and hiccough appear, the temperature rises and the pulse becomes rapid. But, if the condition overwhelms the patient, the temperature becomes subnormal and collapse is rapid.

In a less severe case, as the gastric fluid descends in the abdominal cavity the transverse colon and its mesentery directs it down the outer side of the ascending colon and when it reaches the right inguinal region and excites inflammation, the physician may be led to believe he is dealing with a fulminating case of appendicitis. As the infecting fluid passes further into the general peritoneal cavity the symptoms of general peritonitis follow.

In the subacute type of perforation, so called by Monihan, the opening is small or the stomach is empty or nearly so at the time or the escape of fluid is partly blocked by adhesions or omentum. The sudden pain and other symptoms are less marked than in the acute type and the abdominal tenderness less but more localized. There is rigidity of the muscles in the upper abdomen, but little or no change in the pulse or temperature. The case may suggest strongly gall-stone colic or acute diaphragmatic pleurisy, a gastralgia or a pylorospasm from a nonperforating pyloric or duodenal ulcer. But the spreading peritoneal irritation and infection, the temperature rise and especially a rising leucocyte count will direct the physician to the proper course of procedure.

Here the history of a case may help.

A farmer, 38, active, vigorous and healthy, save for two years had stomach trouble, while in the act of lifting a heavy harness one afternoon, was seized with an excruciating pain in the upper abdomen, fell forward on the floor and called for help. The physician who was called arrived within a half hour and found him still in extreme pain, his face pallid, his skin covered with a cold sweat, his pulse 64, but weak. His breathing was jerky, because painful. He resisted examination and the doctor gave him a fourth of morphine. When the pain abated some and he permitted examination, the recti muscles were tensely drawn and the abdomen, especially the upper half, felt more like a board than an abdomen. The greatest point of tenderness was above the umbilicus and a little to the left. The physician then elicited from the man the typical history of a gastric ulcer. Distress or pain in stomach coming on two to three hours after eating, which was worse if he ate a heavy meal or certain fruits or acids or some coarse foods and which

was relieved by soda or other alkalies or by eating a little again. A short time before this his distress had been worse and he found that if he only drank milk and ate no solids, he was more comfortable. His physician realized he was dealing with a surgical abdomen and wished the man taken to the hospital at once. But the comfort from the morphine and his antipathy to any hospital led him to refuse. During the night his pain grew worse and by noon he gave up and was taken to the hospital. His pulse was now 98, temperature $100\frac{1}{2}$, leucocyte count 18500, and the abdominal muscles still extremely rigid. He was operated at 2 p. m. A moderate amount of murky fluid was found in the upper abdomen and a considerable amount of lymph around the upper surface of the stomach where two inches from the pylorus and on the anterior surface was found an irregular, whitish, fairly thick ulcer with a small perforation near its center. Fortunately, the opening had been small so there had been little escape of gastric content or general peritonitis would, at the time he was operated, have been established and he would not have survived. This is a fairly typical history of a case of a subacute perforation of a gastric ulcer. The physician in this case made the mistake all too common in acute, painful abdominal conditions. He was not positive enough before he gave the morphine that the man should be operated at once and impressed the necessity of immediate action. If the perforation in this case had been a large one, the patient could not have been saved. We should never give morphine in any acute abdominal condition till after we are satisfied with our diagnosis and then it should be given only to relieve pain or to combat shock.

There are a few patients who have a sudden perforation of an old ulcer which had for a long time given them no discomfort and they thought they were well. In these cases there is a rapid digestion of a scirrus part of a healed ulcer where the blood supply is poorest.

There are also a few people who have insensitive peritoneums in which inflammation would not occasion muscular rigidity or pain. Fortunately they are rare.

In the chronic cases of perforation there are more or less extensive adhesions between the stomach or duodenum and the liver, gall-bladder, pancreas, omentum, intestine or colon, and local peritonitis with abscess occurs. The abscess may rupture and cause a general peritonitis, or, if in the lesser peritoneal cavity, it may penetrate into the pleural cavity or pericardium, creating conditions mentioned before. In these cases of old stomach trouble in which a perigastritis has been present, an increase in respiration, a chill, rise of temperature and cough should indicate an examination of the chest for gas and fluid. Occasionally a walled in subphrenic abscess is formed or an abscess in the liver may result. Pain on taking a deep breath, rigidity of the epigastric muscles, increase of liver dullness

and a hyperleucocytosis demand an exploration.

Examination of the stomach content for blood and pus cells and of the feces for blood has long been employed as an aid in the diagnosis of gastric ulcer, but it is not wise in a case of perforation to try to obtain a specimen for this test with a stomach tube. Perforation is often accompanied with profuse hemorrhage and, if the case does not vomit, it should be looked for in the stools. Duodenal perforation is more apt to show blood in the stool than gastric. The urgency of most cases of perforation give little time for laboratory examinations. The time for these and Roentgen examinations is before the ulcer perforates.

In the chronic type of perforation in which it would be safe to give a bismuth or barium laden meal for radiographs, the part of the gastric wall bound by adhesions may be demonstrated and possibly the crater of the ulcer and the perforation showing as a spur or sinus. By raying at different angles these have been shown.

My experience with perforating gastric and duodenal ulcers has been very unfortunate. Of fourteen cases but three were saved; eleven cases were referred after general peritonitis had been well established.

To prevent in large measure the high mortality which results from hemorrhage, perforation, pyloric obstruction and cancer grafted on gastric ulcer, it is necessary that the diagnosis of ulcer be made early. But the laboratory work necessary to prove the presence of the condition is expensive and in many communities unobtainable. The laboratories at our State University, which we maintain, might serve our poorer patients and ourselves by furnishing them and us with the findings and proof of the existence in them of this class of lesions.

REFERENCE

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DISCUSSION

DR. W. M. DONALD, Detroit: The point the doctor made as to the necessity for early and correct diagnosis. It brought flashingly before my mind an experience of a short time ago. I was called to a case very similar to the one he describes, where a man, seeking during the present stringency, economic and otherwise, to save a little money, insisted in the raising of his house and putting in a foundation. It was an unusual form of exercise for him. After crawling out from under his house he walked to a store, half a block away. On the way, he was seized with excruciating upper abdominal pain. He was sent home, similar to our other friend, and the doctor called. Unfortunately, he did not follow it up.

When I was called to see the man, he was about to die, and sank within a few minutes. We had a post-mortem examination. We discovered in his case a perforating ulcer, living three or four days, dying with general peritonitis.

The physician attending was competent. I do not see how he overlooked it. It must have been a temporary lapse of reasoning power. It seems to me, with a history such as given of a sudden pain, upper abdominal, following an injury and with a pre-existing history of disease of that kind, there is no question of diagnosis. The question of fulminating appendicitis should not be considered in any case. The case should be considered positively one of perforating ulcer and the case strictly surgical.

DR. C. E. VREELAND, Detroit: Not hearing all of the paper, I think the closest thing in the differential diagnosis, with a history supposed to be typical, is acute ileus. A few mistakes are made in most every year in large hospital practice with cases of acute ileus. As a rule, the history is more sudden, with a perforating ulcer. The history is markedly different at the time the patient is suffering with pain, or after the morphine, than the history you will obtain several days after the operation. It has been my experience that in a good many cases of it you can't get a history of the previous stomach distress or digestion pain after meals always at the time you are first called. In that way it might be misleading. There are other discrepancies in diagnosing a typical case and the atypical case.

Since time is so important, I think the operation should be done within seven hours if possible, because the mortality is greatly increased after the seventh hour, or the eleventh hour at the most.

The blood count will frequently be normal, quite frequently, the first few hours. There will sometimes be no signs of peritonitis. The pulse rate may be absolutely normal and not of a peritonitis type. There are certain types in which it is of a mechanical origin rather than an infectious peritonium. So I cannot but think with the board-like rigidity and the suddenness of the pain, even minus the history of ulcer preceding or minus the blood count and minus the abdominal pulse rate, you would be justified, with that board-like abdomen, to go in surgically rather than to exceed the seven hours time.

I do not know whether it is within the scope of the paper to talk about what I would term the slowly perforating ulcers. Perhaps you might term it the incomplete as differing from the complete perforations in which there is a walled off ridge and then another penetration into the ulcer. I am aware that surgeons will say that all perforations, whether of the acute, sudden, complete or incomplete variety, are operative. It is my opinion that the slowly perforating or the penetrating type in which they are adherent, if the adhesions form a wall around and if the patient is placed under suitable management, day and night over a long period of time, a cicatrix will form and not interfere with the normal physiology of the stomach and will not interfere with the physiological action of the gall-bladder—that those cases are not operative.

DR. V. L. TUPPER, Bay City, (Closing): Dr. Vreeland's able discussion brings up points I only touched in the paper, chronic perforations with perigastritis and adhesions to other organs and wall formation. The doctor evidently is inclined to the medical treatment in these cases. I believe that the medical treatment has done a great deal more for gastric ulcers of this type than surgeons admit.

The main point in this case. I recall one case extremely well of that type, which kept us on the fence about two days wondering which way he would go. The leucocyte count was the only thing that helped us out and determined what was really necessary. For gastric ulcers are very painful, particularly those perforating into the pancreas. They are not relieved by taking of alkalis. The pain is boring and persistent. That has been the experience with the few cases I have seen.

I do not believe that surgical treatment of gastric ulcer is applicable to every case or all cases, because ulcers do not always exist where drainage operations will help.

GLAUCOMA

R. S. WATSON, M. D.
SAGINAW, MICH.

Glaucoma is a disease characterized by increased tension of the globe and gradual or sudden impairment or loss of vision. It formerly indicated, according to Von Graefe, "a vague expressionless symptom, a sea green, a bottle green, or dirty green background of the eye seen through a fixed dilated pupil."

Broadly speaking, the term glaucoma is applied to all those conditions in which the intraocular pressure is abnormally increased.

Priestly Smith has defined it as "an excess of pressure within the eye, plus the causes and consequences of that excess."

HISTORY

The term glaucoma is of great antiquity. To the ancient writers such a disease as glaucoma could not have been known, in its early stages. From the time of Hippocrates until the early part of the eighteenth century the term was applied to cataract as well as to other conditions.

Hippocrates employed not "glaucoma," but "glaucois," and that but a single time. The sense in which he used the term has never been exactly made out but he probably meant to cover the condition which today we know as "cataract." By the Greco-Roman writers, "glaucoma" would seem to have meant "light blue." In an old manuscript occurs this definition, "Glaucoma is an alteration of the natural fluids into a clear blue with complete blindness."

Rolfinch, in 1656, pointed out and demonstrated the true location and nature of cataract, in that a cataract is essentially a clouding of the crystalline lens and not, as had been formerly supposed, the flowing down of an inspissated humor into a cataract space between the pupil and the lens. All this time the idea of hypertonia had never been entertained.

With Muller and Von Graefe entered the conception which, since that time has been the essential idea of glaucoma. It was not until 1830 that Mackenzie observed that hardness of the globe and an increase in the contents of the eye were accompaniments of the conditions of what was by that time called glaucoma. It was not until the invention of the ophthalmoscope in 1850 that we were able to study and diagnose the non-inflammatory types. Prior to this time

only the inflammatory types were studied and diagnosed.

In 1854, Mackenzie advised that "paracentesis of the cornea, or the sclerotic affords great relief of pain. Albrecht Von Graefe noticed a lowering in tension after iridectomy.

Many hypotheses of the cause of increased tension were proposed. Leber advocated that the cause lay in the obstruction of the iris angle; his researches were corroborated by Knies and Weber and their conclusions are universally accepted.

Priestly Smith in 1879 advanced the idea that primary glaucoma depended on the grown of the lens, or rather a disproportion between the size of the lens and the size of the eyes.

Thomas Henderson claims that sclerosis of the pectinate ligament is the cause of the obstruction in the filtration area.

The difference of opinion shows the difficulties connected with the subject and the end is not yet.

Let us review rapidly the anatomy of the aqueous chamber. The aqueous chamber is bounded in front by the cornea, behind by the lens and its suspensory ligament, and laterally by the ligamentum pectinatum and anterior part of the ciliary body. Its depth varies, it is comparatively deep in the young and myopic eyes, it is often shallow in hyperopic eyes. The iris divides the aqueous chamber into an anterior and posterior chamber. The posterior lies between the iris and lens, the iris touching the lens only at its pupillary margin. The posterior communicates with the anterior by means of the pupil.

The portion of the anterior chamber where sclero corneal margin iris and ligamentum pectinatum meet is called the iris angle. This is a region of great importance; upon its integrity depends the proper circulation of the lymph which nourishes the anterior portion of the eye ball. The ligamentum pectinatum contains spaces lined with endothelium called the spaces of Fontana. To their outer side at the sclerocorneal junction is Schlemms canal. With the exception of the conjunctiva no portion of the eye contains lymphatic vessels. In place of such vessels and serving the same function, there are lymph channels and lymph spaces. These may be divided into those of the anterior and posterior portion of the eye ball.

The experiments of Priestly Smith and of Gifford prove conclusively that the anterior

and posterior chambers are lymph channels. The aqueous is secreted by the epithelium covering the ciliary processes and the posterior surface of the iris. It first passes into the posterior chamber through the pupil to the anterior chamber and leaves the eye through the spaces of Fontana, Schlemms canal and the anterior ciliary veins. Any obstruction at the iris angles will cause increased pressure.

Hamburger believes that there exists a physiologic seclusion of the pupil—that the iris secretes the bulk of the aqueous. He found that coloring matter introduced into the posterior chamber did not make its appearance for twenty minutes or more. The clinical reasons for his belief are the frequently prolonged presence of aqueous in *seclusio pupillae*, and that in embryonal life at a time when the pupil is still clouded by pupillary membrane the anterior chamber is present. Some think there is some transfusion or osmosis through the iris.

Salzman points out that it is a necessary result of the conical form of the iris that the iris is pressed against the lens. The shallower the anterior chamber the greater the pressure. This pressure may be enough at times to prevent the free passage of aqueous from the posterior to anterior chamber. As Salzman says, only in this limited sense can one speak of a physiologic seclusion of the pupil.

It would seem that a slight advance of the lens might obstruct a free flow of aqueous from the posterior to the anterior chamber as well as in the words of Priestly Smith, causing a "slowly increasing contact of the iris with the cribriform ligament."

In whatever way the hypertension is caused the lens seems to be the disturbing element.

We will confine our thought to primary glaucoma, which may be divided into, 1, Inflammatory and 2, Non-Inflammatory.

The inflammatory variety may be divided into 1, acute, and 2, chronic.

Priestly Smith asserts that primary glaucoma forms 1 per cent of all diseases of the eye. Of 202,705 cases of eye disease treated at the New York Eye and Ear Infirmary, 611 or 0.3 per cent were cases of primary glaucoma.

CLINICAL HISTORY

It is common for both eyes to be subject to attacks of glaucoma which connection depends not in the way of sympathy, but upon the fact that the conditions which are

likely to lead to the disease usually exist in both eyes.

It might be stated generally that the more acute the disease in the one first involved the shorter the interval before the other suffers.

SYMPTOMS

There are certain well defined symptoms common to all forms of primary glaucoma, all of which may not be present in a given case. The first and most important symptom is a rise in intraocular tension. The inevitable consequence of a continued increase of tension are excavation of the optic nerve and reduction, with ultimate annihilation, of the sight of the affected eye. The pressure is most accurately taken with the tonometer. The instrument of Schiotz is most commonly used.

Normal tension varies between 12 m. m., to 27 m. m. of mercury; above 27 m. m. is certainly pathologic cloudiness of cornea, when the intraocular pressure is increased and tension raised, a condition of edema of the cornea is set up from interference with the flow of corneal lymph.

In the acute cases very marked with general hyperemia of conjunctiva and often chemosis.

The depth varies in different cases from an almost imperceptible degree to complete obliteration of the anterior chamber.

Usually the size is increased and shape altered so that it is no longer round but oval or egg-shaped.

When the pressure has continued for some time the optic disk becomes transformed into a cup, the so-called glaucomatus cup, owing to the recession of the lamina cribosa. This is the weakest point in the eye ball, owing to the numerous foramina for the passage of the bundles of the optic nerve.

Anaesthesia of the cornea caused by compression of the nerves by the fluid that has collected in Bowman's membrane.

Very severe in the acute cases. The pain in the side of the face and head increases hour by hour so severely as to cause nausea and vomiting.

Sudden loss of vision in the acute cases.

A loss of accommodation and desire to change lenses often or a desire for lenses stronger than age would warrant.

ALTERATION IN PERIPHERAL FIELD

Contraction of field chiefly on nasal side.

Halo vision may be complained of, caused by edema of cornea.

The subacute form may arise with scarcely any premonitory symptoms or it may be the sequel of repeated mild acute attacks. It is characterized by intermittency, after several months or a year total blindness supervenes, unless we are able to stop process by appropriate treatment.

Chronic glaucoma begins almost imperceptibly in persons about fifty years of age. History usually obscure; haziness of vision sometimes dating back to a time of worry or grief.

The progress is slow. One or both eyes may be affected. External signs of glaucoma distinctly increased. With the tonometer variations may be noticed from day to day. In later stages the eye may have a stony hardness with deep supping of the disk.

In spite of these changes there may have been an entire absence of pain. The lens may take on a grayish or greenish line, and in cases where the ophthalmoscope has not been used a diagnosis of "cataract" has been frequently made and patient advised to wait for "ripening" with disastrous results.

In early stages field of vision may show marked contraction.

CAUSES

More often seen in persons of "spare habit." It sometimes occurs in several members of a family.

It rarely attacks anyone before the age of forty.

Many cases among Hebrews, Egyptians and Brazilian negroes. No race is exempt.

Females are more susceptible than males.

Small eyes more liable to be affected. Usually hyperopic with disproportion between size of lens and cornea.

Gilbert found among 71 cases of glaucoma at the Munich clinic, 26 per cent emmetropic or myopic; in 115 inflammatory cases 77 per cent were hyperopic.

Changes in general vascular system, arteriosclerosis, gout, syphilis, nephritis.

Weeks says 90 per cent of primary cases, except in infantile glaucoma, give a history of chronic constipation.

Improper use of drugs, mydriatics, etc. It is well known that the application of mydriatic solutions may light up a severe attack of glaucoma in an eye that has previously shown no sign of the disease yet these drugs cannot excite glaucoma in eyes which are not already predisposed thereto.

The peripheral folding and thickening of the iris that accompany a dilatation of the pupil may be sufficient to block an already narrow filtration angle. In this connection, one must not neglect to instill a miotic after

a mydriatic, especially in those over 40 years of age.

J. E. Weeks* regards the principal determining causes of hypertension as—1. Obstruction to the outflow of liquids from the interior of eye by—

- (a) Inflammatory products, or the presence of fibrin in aqueous blocking the space of Fontana or nondiffusible substance such as colloids or albuminoids which do not readily pass the filtration spaces (anterior chamber usually deep):
- (b) Encroachment of iris on the spaces of Fontana following increase in the size of lens or increase in the contents of the vitreous chamber, (anterior chamber shallow):
- (c) Development of iris cysts and tumors or thickening of iris:
- (d) Increase in volume of the contents of the vitreous chamber by retinal hemorrhages or by the intraocular growth.

2. Sclerosis, affecting the lymph spaces at the sclero corneal junction.

3. Increase in intraocular secretion as in abnormal condition of the vascular system (aortic insufficiency) plus extensive temporary increase in arterial tension.

4. Retention of aqueous in the posterior chamber.

DIAGNOSIS

The diagnosis of acute glaucoma is not always a simple matter. It may be mistaken for iritis. In plastic iritis the tension is often elevated. The pupil will be small unless atrophine has been used.

Diagnosis of neuralgia, cataract, atrophy of optic nerve, etc., frequently made. A greater use of the perimeter, tonometer and ophthalmoscope will clean up most of these cases.

It is routine practice to test the tension of all patients by digital palpation. If the tension appears above normal or there are any signs of tension a tonometric measurement is taken. In all cases of tension above 25, as determined by the Schiötz tonometer, miotics are resorted to and an endeavor is made to keep the tension at or below that degree.

The fields of vision for form and colors are taken from time to time and the degree of vision is determined. In many cases has it been possible to keep the tension at about 25 for several months or years without deterioration of vision. Weeks reports a case in which after two years the tension went below normal and the miotic was discontinued for three years and the tension had not returned.

In regard to range of tension as measured by the tonometer of Schiötz. Weeks has

*Journal A. M. A., Oct. 11, 1919

seldom seen a normal eye with a uniform tension less than 12 or more than 27. The usual normal range being from 16 to 25. Weeks reports one case at 130 m. m.

TREATMENT

Free catharsis. Fluid extract of jaborandi may be given in $\frac{1}{4}$ to 1 dram doses three times a day. Miotics locally, pilocarpine or eserine. If miotics do not control the situation, operation is advised. A diminution in the field of vision for form or color or a diminution in vision is an urgent indication for operation. Early operation is desirable.

In the acute cases Weeks usually operates at the height of an attack, doing a broad iridectomy.

In the subacute and simple chronic cases he prefers an operation that will permit of the formation of a filtering cicatrix.

Ophthalmology owes much to Elliott and Lagrange for the operations they have advocated. Weeks prefers the Lagrange, while Parker and many others prefer the Elliott trephining operation. The indications for and discussion of the various operations we will leave to be developed in the discussion by operators of more experience than myself.

DISCUSSION

HAROLD WILSON, Detroit: This paper is difficult to discuss because there is so little to disagree with, and secondly, because there is such a vast amount of ignorance on the subject of glaucoma, which we all possess. We have not even arrived at a definite method of determining the intraocular tension, as regards the amount of same. Those believing in the Schuotz tenometer will report one reading, while those that believe in the N. C. Lane will report another. The exact tonometric reading is not of signal importance. The important thing is the existence or non-existence of hypertension in the eye.

The general cause, quoted from Dr. Weeks, involves practically all we know at the present time of the underlying physio-pathologic reasons in the presence of which glaucoma originates.

As to methods of operating, I am inclined to believe that one's personal experience is apt to lead him, to the choice of operative procedures, rather than other considerations. My own experience in trephining has not been so happy as that of some of my colleagues. My experience with the La Grange operation has been more happy; but that is merely personal and not to carry more weight than the experience of any individual will carry weight.

It is very unfortunate that our knowledge of chronic non-inflammatory glaucoma is so limited.

Speaking on the lack of knowledge we have, in discussing as to whether the excavation of the disc is due to pressure or to pathological changes in the nerve itself, we hardly know the cause of so simple a phenomenon as that. There are cases in which it is doubtful whether the nerve is excavated at all.

I would like to lay more stress on the use of the perimeter in glaucoma. It is one of the most valuable aids in arriving at a diagnosis where the hypertension, if it exists, is fleeting and easily overlooked, and where there is a material change in the visual fields. I noticed a recent article on Schemm's canal, in which we are now going to

revise our views in such a simple structure as the canal of Schlemm. If you want to immortalize yourself, it is possible in the matter of glaucoma as in no other ocular disease in which we come in contact.

DR. DON CAMPBELL, Detroit: This matter of glaucoma is one we all agree is at least one of the most important in ophthalmology. One has to steer a careful course between a failure to recognize a disease which is insidious in its onset, and being stampeded into seeing glaucoma when it does not exist. The mistake is made as often and it is as desperate on one side as on the other.

Speaking of the visual fields, this is an important thing. And when you add that in addition to the use of the perimeter, and the careful taking of the field, the use of the comptometer is an important advance in the study of the field, especially as it refers to the enlargement of the blind spot, which is an important indication of the onset of glaucoma.

The finger test should be relegated into the past. It is so uncertain and the personal element is so apt to lead one astray that I think it best not to employ it at all in judging the increase in tension, and depend more on the tenometer readings. Or, as Dr. Watson has pointed out, if showing increased tension, whether one, or two, or three degrees more, and whether there is a demonstrable and unmistakable increase in tension. One is sometimes lulled into the thought the disease is being controlled when it is in reality making progress.

No case of the central type should be intrusted to medicinal treatment without careful tests of the fields of vision as indicated.

One of the most interesting articles of late is by Terron in which he advocates the use of iridotomy. His idea is that the contact of the rear surface of the lens is enough to preclude the drainage from the posterior to the anterior chamber, and that glaucoma is produced by the retention of the liquid in the anterior chamber. I have in the last month experimented somewhat on the operation of iridotomy. A man who had complete loss of vision in his right eye—absolute blindness, with high tension; in the other high tension, 60 with the tenometer, in which I did a trephining with good result. I thought it a good case to test on iridotomy, and while the tension was 70 before the operation, it was reduced in 48 hours to 30 and it has remained below 40 ever since that time, about three months. There is no improvement of vision, but the tension is greatly and permanently reduced.

It has seemed to me that the important part of the operation is to make the puncture far toward the periphery. In some cases the puncture has been too near the lens. The operation is also accompanied, in the hands of the originator, with a sweep of the knife up through the anterior chamber and into the angle of the corneo-scleral border. This we used to do years ago, but I know that part of the procedure is of no value, and we get most out of the iridotomy itself. The operation is new and has not had time yet for improvement, but there is possibility for that. It is simple and done without injury to the eye and has the advantage of leaving the eye where other operations can be done in case this should prove to be a failure.

DR. WALTER PARKER, Detroit: As to choice of operation in the non-inflammatory cases, I had occasion a number of years ago to make a comparative study between the results obtained from a series of non-inflammatory cases, in iridectomy and trephining operation. While a good many things we do not know about simple glaucoma, one or two things stand out distinctly in the experience of all of us. First, there is no direct relation between the depth of the anterior chamber and the tension of the eyeball. Many cases of high tension will have a deep chamber, where a slight rise in tension will have a shallow chamber.

The other point is that the iridectomy sometimes does good and sometimes does harm. If we were able to select our cases of tension, we could cure

a certain group of them by iridectomy properly performed.

In looking over my notes in one other case the note was made that the anterior chamber was deep, and in one shallow. Basing my observation on this, I have in the last 10 years divided my simple glaucoma cases into anterior non-inflammatory and posterior non-inflammatory. All the cases in the anterior non-inflammatory the chamber is deep and we do an iridectomy; and in cases of posterior non-inflammatory we do a trephine. In the series 79 cases were trephine and 43 iridectomy. In this series the tension was reduced in 74%. In the 43 cases in which we did an iridectomy the tension was reduced in 72% of the cases. They were practically the same. They were taken just as they came.

There are, in general, two lymph streams, one near the anterior angle and the other the posterior, near the optic nerve. If we can imagine, the outlet of the anterior stream is more closed in than that of the posterior, then the flow will be back to the posterior chamber; there will be a plugging of the anterior angle, the lens will be pushed back and you have a bog anterior chamber. Then the iridectomy is indicated. On the other hand, if it begins in the posterior chamber, then the iridectomy will do no good. If we have a blocking of the filtrant angles anteriorly the iridectomy will do good, but if not, it will do no good whatever. In the posterior we do a trephining operation and trust to a permanent filtering cicatrix. None of these cases should be subjected to operative procedure until we are certain the medical, general and local treatment will not keep them under control. Wilson made the point that the rise of the tension alone without careful determination of the fields is not a reliable indication. We must have this absolute test whether it is going up or down. If it is going down you can continue with your medication.

DR. BAKER, Bay City: I am inclined to think there has been a marked falling off as compared with the number of cases noted before refraction of a high grade was generally practiced. Twenty-five years ago there were many cases, and now they are comparatively rare. I do not believe that I have failed in my diagnostic ability as compared with the falling off in the number of cases I see. I attribute this to the fact that good refraction is more frequent and the eye strain, which may be a fundamental underlying cause, has been largely done away with. My cases were largely people with hyperopia and hyperopic astigmatism.

I wish to refer to a peculiar operation which was done on a patient. The man had chronic glaucoma, for which he refused operation, and had frequent attacks of hemorrhage into the anterior chamber, and he came to the doctor for comfort and consolation more than for treatment. On the fourth of July his young grandson fired a four-inch cannon fire cracker, and it failed to go off. The man picked it up to investigate and the thing went off in his hand, a portion striking him in the eye-ball and it produced an internal iridectomy from the higher third down into the chamber, and it left a filtration point there, and the tension was reduced and never came up again. I am not, however, recommending this as a routine procedure.

DR. ROBERT BEATTY, Detroit: While in Paris two years ago, I attended the clinic of Dr. Morris. Dr. Madder seemed to have something up his sleeve on tension. He claims the cupping of the disc is not due to pressure, but to arterio sclerosis. The nerve is impoverished and that is what causes the cupping.

In the matter of trephining, speaking with Dr. Lister in London last summer, I asked him if he was doing Elliot's in all glaucomas and he said not altogether. I asked "do you select your cases?" and he said, "Yes the simple acute cases we trephine, but not until we use the mydriatic for several days, or enough to reduce the inflammation. The trouble has been that you get a filling up of the disc."

DR. WATSON, (closing discussion): I have been much gratified in the discussion and very glad to

hear from Dr. Campbell on the iridotomy he has done. Also from Dr. Parker and others. Regarding the frequency and whether less of late years on account of better refraction we are not in a position to tell. It would seem a hyperope would be less apt to have tension than otherwise. I think some times in our busy office work we get a little careless about taking the tension, and I wish to urge the digital examination and the use of perimter and the installation of the miotic in patients over 30. Some of these operations, especially the trephining operation, I have had little experience with. I was very glad for Dr. Parker's explanation of the posterior and the anterior cases.

TREATMENT OF DIPHTHERIA CARRIERS WITH MERCUROCHROME OR GENTIAN VIOLET

B. U. ESTABROOK, M. D., and
A. R. LINCOLN, M. D.
DETROIT, MICH.

Confronted by the necessity of eradicating the Klebs-Loeffler's Bacillus from the diphtheria carrier cases among our convalescent patients at the Herman Kiefer Hospital, we concluded to try local treatment to accomplish this end before more radical operative measures were resorted to.

A series of cases were treated by mercurochrome and another series were treated with gentian violet in order to determine the relative merits of these two drugs in curing these cases. A five per cent aqueous solution of mercurochrome was used in the one series of cases and a saturated aqueous solution of gentian violet was used in another series. The third series of cases were given no treatment at all in order to determine the relative number of cases that would clear up spontaneously.

The tests were conducted on scarlet fever cases that were found to be complicated with diphtheria infections. The diphtheria carriers were in the period between the third and sixth week of their scarlet fever. The men and boys were treated with mercurochrome, and the women and girls were treated with gentian violet.

The treatment consisted in the application of the solution by means of a swab to the nose and throat twice daily for a period of three days. Twenty-four hours were then allowed to lapse before a culture was taken. No apparent ill results attended the use of either of the above mentioned solutions.

The following table indicates the number of treatments and the results obtained:

	Number Treated	Number Cured	Not Cured	Per Cent Cured
Mercurochrome	44	30	14	68.0%
Controls	35	15	20	43.0%
Gentian Violet	37	23	14	62.0%
Controls	35	9	26	25.0%
Total Treated	81	53	28	65.4%
Total Controls	70	24	46	34.2%

From the above table it will appear that a little over 58 per cent were cured with the use of mercurochrome, and 62 per cent were cured with the use of gentian violet, whereas, on an average, 34 per cent of the controls cleared up without any treatment. It would, therefore, seem that the result of the treatment of these cases is encouraging and that mercurochrome apparently gives the best results.

It is appreciated that the number of patients is relatively small so that a definite conclusion is not offered.

DISCUSSION

DR. FRED M. MEADER, (Detroit): It is rather difficult to get statistics on treatment of diphtheria carriers. Literature is full of statistics showing what this thing and that thing will do to cure them, but they uniformly leave out the matter of control, and I think the great contribution that Dr. Estabrook has given us is the fact that he has controls—near, as many controls as he has cases that he has treated. He can deduct from the total the number of cases that would normally have cleared up, which gives us a better idea as to the real value of the test. We have been very much interested in this treatment of carriers in Detroit; realizing that there were other agents which could be used we were anxious to find out just how much they were of value. Since Dr. Hickey is absent, I will ask Dr. Leo Donnelly to open the discussion.

DR. LEO C. DONNELLY, (Detroit): During the past month I have treated 30 or more diphtheria carriers for the Board of Health. I cannot give you absolutely accurate results because Dr. Meader does not believe that sufficient time has elapsed to prove that the carriers sterilized will not again become carriers after a lapse of weeks or months.

Mr. Miller, bacteriologist at Providence Hospital, did the laboratory work on some cultures for me.

Petri dish cultures of mixed staphylococci and streptococci were exposed to the Kromayer lamp for one minute, three minutes and five minutes. Transplants were made; a slight growth appeared at the end of 56 hours on the culture exposed one minute. Three and five-minute cultures were absolutely killed as no growth has recurred during the last five days:

Two Loeffler's blood serum diphtheria cultures, regular Board of Health tubes, were exposed for three and five minutes. No growth appeared for 48 hours. Then transplants taken from upper two inches of tubes did not grow, those taken from bottom of tubes grew. The bottom of the tube was farther from the light and the dose was less intense.

Blood culture suspension of diphtheria was exposed for five minutes. There was no growth for first 56 hours, then there was a growth.

Two classes of patients have been treated: Americans, who can understand English and who co-operate intelligently, and foreigners, who do not understand English and who cannot co-operate well, because they do not understand what you want. As far as I can find out, 100% of the American throat and nose carriers have been cured. About 50% of the foreign throat carriers and perhaps 25% of nose carriers cured. I believe that I can develop my technic so that I can cure 100% of throat carriers and perhaps 100% of nose carriers. At the present time I am not enthusiastic about ear carriers, although I did

cure one case of otitis media, three weeks free purulent discharge, with one treatment. She had enlarged tonsils and an acute rhinitis. The rhinitis was cured and the tonsils shrunken a certain amount.

The technic briefly is as follows:

The Kromayer lamp is turned on full intensity and directed through one of these applicators to the tonsil, if the patient will permit, the applicator is placed in contact. An exposure of three minutes is made. With the smaller applicator the tonsil may require treatment in two or three segments, each of three minutes. Both tonsils are treated alike.

In nasal carriers, I first shrink the mucous membrane with adrenalin chloride solution. The light is directed through this applicator, one minute for each linear half inch of nostril, attempting to pass the applicator away back to the posterior nasal pharynx. It is withdrawn more quickly, say 15 seconds to each half inch. Then the other nostril is treated in the same way.

The rationale of this treatment is based on the following known facts:

Ultra violet rays of light are electromagnetic waves shorter than violet rays of light and having a much higher vibration rate. Electromagnetic waves are detected and investigated by the resonant vibrations which they set up in objects upon which they fall. Any object capable of vibrating can always be set in motion by a train of vibrations which are of the same period, or a multiple of the same.

Electromagnetic waves have no effect upon objects which are incapable of vibrating in resonance with them. These substances are transparent to the rays.

The substances of which living organisms are composed are capable of resonant vibrations for a considerable range of vibration frequency. The absorption of ultra violet rays by bacteria bring about photo-chemical changes which kill the bacteria and break down their toxins.

Use demonstrates that bacteria are broken down by small doses of ultra violet rays, and that they can be used without damage to body tissue. They differ from radium and X-ray in being constructive rays, except when used in very large doses.

Two articles comprising about 100 pages appear in the April issue of the American Journal of the Review of Tuberculosis. The article by Dr. Mayer of Trudeau Sanitarium, Saranac Lake, gives an excellent critical review of the history, physiology, physics and opinions of many users of heliotherapy.

DR. FRED M. MEADER, (Detroit): I might say that in general the effect of treatment of the tonsils seems to be favorable. However, for nose and ear cases, up to the present time, it was not of special value. The problem of what we are going to do with the diphtheria carriers, is one of the most burning public health questions that we have. We have irate parents come in and say that their children are all right, and they want to know why they are excluded from school. We have a little difficulty in convincing them that they should be kept out of school. It may be interesting for you to know that one of the best means I have found of convincing them is a series of serial sections I have of stained tonsils. I can show them the organisms located in the surface of the epithelium. I have two lantern slides, one showing where the colony is located, and a high-power of that showing the individual organisms of that colony. When they can actually see those things, that helps a great deal.

In another series of 50 diphtheria carriers, which I had at one institution, we took all of the tonsils out. Eighty per cent of those cleared up at once. Probably the removal of the tonsils will cure diphtheria carriers in the largest number of cases, and it is probably the best single treatment that we have, but we cannot always have the tonsils removed, and these other methods are certainly of value in the treatment.

TUBERCULOMA OF THE CEREBELLUM*

CARL McCLELLAND, M. D.
DETROIT, MICH.

This case of tuberculoma of the cerebellum is presented not because of its rarity, but to emphasize again the importance of exhaustive study, and examination of all organs of the body, in order to arrive at an exact diagnosis. The examination of the eye grounds, in the case decided whether the head or the abdomen was to be opened.

Mrs. G., age 25 years, referred to me Dec. 9, 1920, by Dr. W. W. MacGregor, and from whose notes, on the history and physical examination I quote very freely.

Complaint—Severe headache in the occipital region, feeling of dizziness, loss of strength and pain in the stomach.

Family History—Father is living and well. One sister married, living and well. Two sisters died of tuberculosis, ages 20 and 25, respectively. Mother dead, cause unknown. Cancer, epilepsy and nervous diseases negative.

Past Personal History—All the usual diseases of childhood, diphtheria, scarlet fever, chicken-pox, measles and mumps.

Adult Life—Influenza one year ago.

Surgical—Three years ago was in hospital for curetment.

Menstrual—Started at the age of 15, always irregular and pain the first day. Married at 17. Has two children living and well, ages 7 and 5. Has had two miscarriages, the last one was two years ago. This was followed by her curetment.

Venereal—Negative.

Previous Habits—Housewife, always did her own work, habits, good, sleeps well at night, but of late feels sleepy and dozey, appetite fair. Patient always constipated. No illness similar to present.

Present Illness—Started about one month ago, but she said she had attacks of this pain in the back of her head before. Headache is not of a sharp cutting pain, but, of a severe gnawing, boring pain located in the occipital region. Complains of some dizziness and has a slight discharge from the right ear, which was infected during influenza last year. Examination of the right ear, showed chronic otitis, with a slight purulent discharge. She states that when she begins to walk she falls from dizziness and that the pain is quite unbearable, so much so, that she does not care about eating.

EXAMINATION

Patient fairly well nourished, lying in bed on the right side, cheeks rather flushed, no scars manifest about the head, neck, chest or any part of the body, black hair, brown eyes, expression listless, skin of a swarthy hue. A chloasma spot on the right side of the neck, eyes react light and distance, ears, right, discharging with foul odor, left negative, tongue slightly coated, teeth, fair with the exception of the upper second molar on the right side, neck, negative, no palpable glands, chest and heart negative, breath sounds regular, no myocardic murmurs,

very little cardiac pulse. Percussion and auscultation of heart and lungs negative, abdomen, no palpable masses, some tenderness in the right costal cartilage of the right side in the gall-bladder region, reflex, slightly exaggerated.

VAGINAL EXAMINATION

Small second degree pelvic laceration. Bartholine glands negative, smears negative, cervix negative. Uterus, position retro-displaced, size a little larger than normal contour, mobility only moderate and that at the lower pole, some tenderness in the right tubal region.

LABORATORY EXAMINATION

Wassermann test was negative, both for blood and spinal fluid.

Blood examination, on admission was, hemoglobin 76%, red cell count, 5,870,000, white cell count, 11,800; polynuclear, 63%; eosinophile, 1%; small mononuclear, 24%; large mononuclear, 12%.

Urine examination was negative at this time.

A culture of the bile showed no bacterial growth, examination of the feces was negative for mucus and occult blood. A lumbar puncture was done three times, first time fluid was under considerable pressure, 10 c. c.'s were withdrawn, after second operation.

Cell count 140 c. c.'s. Polynuclear cells 47%. Mononuclear cells 55%.

No growth of bacteria.

Some of the spinal fluid was injected into a guinea pig, the pig was autopsied after six weeks, the pathologist's report, no evidence of tuberculosis.

It was thought from the physical examination and the general aspect of the case, that the gall-bladder and possibly the appendix were responsible for her complaints. However, when I examined her eyes and found she had a choked disc of 5 diopters in the right eye and 4 diopters in the left, and a chronic discharging ear on the right side of nine months duration, following an attack of the flu, a diagnosis of brain abscess was made. Further examination showed that the patient had had some vomiting, excruciating pain in the occipital region, she lay on her right side, that she was dizzy and inclined to fall to the right, she passed-pointed to the right, she had been running a sub-normal temperature, low blood pressure. She had no nystagmus, no ocular palsies or paralysis, vision in the right eye, 20-50, left eye 20-40, no diplopia and perfectly clear mentally. Throat showed septic tonsils, nose sinusitis were negative. X-ray shows density of right mastoid, no other pathology.

Examination of right ear, showed considerable tenderness on right cerebellar region, some foul discharge in external canal drum. Present and rather a large perforation in the posterior inferior quadrant, hearing greatly diminished. Schwabach positive. Rinne negative. Fistula test negative. A diagnosis of cerebellar abscess was made. Dr. Emil Amberg saw the patient and agreed with me in the diagnosis. Dec. 12, 1920, radical mastoid operation was done, with gas anesthesia mastoid was of sclerotic type, few pneumatic cells, no free pus. Cerebellum was uncovered, internal between the lateral sinus and the horizontal canal for an area of half an inch in diameter.

Because of the length of time of the operation and the weakened condition of the patient, it was decided not to go further with the operation, but to do it in two steps. For 12 days following the mastoid operation, patient was free from pain, no vomiting, no dizziness. Choked discs did not come down. On Dec. 20, 1920, 12 days later, pain and vomiting returned, and it was decided to open the

*Read before the Ato-Laryngological Section at the State Meeting at Bay City, 1921.

dura, using gas anesthesia again. The probe entered a cavity about an inch or an inch and a half in diameter, from which escaped a large amount of dark red blood, so much so, that we feared for a moment that the sinus had been opened. No pus was found, a wick of gauze was inserted in the cavity. For four weeks the patient's condition appeared quite favorable, both day and night nurses were discharged, temperature was normal and she considered going home, when she began to run a slight afternoon temperature, of a degree or a degree and a half. Her choked discs had decreased to a plus 2.00 in the right and a plus 1.00 in the left. Along with the temperature she developed a diplopia with an internal quint in the left and severe photophobia. Culture from fluid in the cavity report was staphylococcus auris. The cavity in the cerebellum at this time had closed so that we were no longer able to insert a drain. She again had pain in the occipital region and some vomiting, she was given gas and the opening in the dura was enlarged. We found the cavity the same as before and filled with dark blood, this was done Jan. 26, 1921, or four weeks later. Patient did not rally well from the operation, was irrational at times, had difficulty in retaining food on her stomach. A spinal puncture was made, and we found increased pressure and negative culture with a high cell count, with a predominance of mononuclear type. This was our first sign that we were probably dealing with a tuberculous infection. She rapidly became worse and died Feb. 9, 1921.

Autopsy was obtained and the report was as follows:

AUTOPSY

The skull was quite thick and the scalp in the posterior portion was congested. The dura mater showed nothing abnormal, but the pia showed uniform congestion. When delivering the brain there is seen very dense adhesions between the right cerebellum and the dura. The base of the brain from the brain stem to the optic chiasm showed a veil like adhesion and just at the junction of the optic nerve, there is a small opaque tumor of about 1 cm. in width.

The right cerebellum shows a mushy consistence and there are several small tumor nodules, two or three of which show caseation in the center. The largest one is the size of a large filbert. No other pathology was seen.

ANATOMICAL DIAGNOSIS

- Tuberculoma of the right cerebellum.
- Tubercular adhesions at the base of the brain.
- Tuberculoma of the optic chiasm.

Section of these tumors was made by the late Dr. Carl Melloy; the microscopic examination confirmed the diagnosis of tuberculoma.

CONCLUSIONS

1. This patient apparently had tuberculosis of the brain without any evidence of it in any other part of the body.
2. The terminal stage was that of encephalitis, continued high temperature 103, pulse high, unconsciousness for three days prior to death, no meningeal irritation.
3. Diagnosis of cerebellar abscess, with the history and findings seemed logical.
4. The early and continued choked discs explained by the presence of tuber-

culoma at the optic chiasm, would expect a temporal hemianopsia; apparently this was not present.

OSLER SAYS

"Tuberculosis of the brain occurs as:

- (a) As an acute milary infection causing meningitis and acute hydrocephalus.
- (b) As a chronic meningo-encephalitis, usually localized and containing small nodular tubercles.
- (c) As the so-called solitary tubercle.

The chronic form comes on slowly and has the clinical characteristics of a tumor. It is most common in the young. Of 148 cases, collected by Pribram, 118 were under 15 years of age. Other organs are usually involved, particularly the lungs, bronchial glands and the bones. In rare cases the tubercles are found elsewhere. They occur most frequently in the cerebellum, next in the cerebrum then in the pons. The growths are often multiple. In 100 out of 183 cases (Gowers) they range in size from a pea to a walnut, large tumors occasionally occur and sometimes an entire lobe of the cerebellum is effected.

On section of the tubercle presents a grayish-yellow caseous appearance usually firm and hard, encircled by translucent tissue. The centre of the growth may be semi-diffuent, as in other localities the tubercle may calcify. The tumors are as a rule attached to the meninges, often to the pia at the bottom of the sulcus so that they look embedded in brain substance.

PERSHING SAYS

Of all intracranial tumors, one in 20 is so situated and of such a nature that its complete removal and subsequent restoration of the patient to health are impossible. The cerebellum is an unfavorable field for operation, all manipulations in this region are exceedingly dangerous, on account of the close proximity of the pneumogastric nerves, and the vital centres in the pons and medulla.

STARR REPORTS

Sixteen cases of tumor of cerebellum. In 9 cases tumor was not found. In 2 cases tumor was found and could not be removed. In 3 cases removed and patient died. In 2 cases tumor was removed and patient lived for a time at least. He says a tuberculous tumor is an unfavorable kind for removal, because of the danger of there being more than one growth and the difficulty in removing a single one.

Von Bergman advises against any operation in tuberculous tumor of the brain.

Warthin says: Tuberculoma is most commonly found in the cerebellum. About 75% of all cases of primary tuberculosis of the brain exclusive of meningeal tuberculosis are of this type. About half of the so-called "brain tumors" in children are solitary tubercle or tuberculoma, the number decreasing beyond the twentieth year, so that in adult or old age it is a rare thing.

While the cerebellum is the most frequent location, they are found also in the pons, medulla and the base of the brain.

EXAMINATION OF SCHOOL CHILDREN IN GRAND RAPIDS, MICHIGAN

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During the school years of 1919-1920 and 1920-21, 5,075 boys were given physical

examination in the city schools of Grand Rapids, Michigan. Of this number, 320 were incompletely examined, that is, a head and neck examination only, was made.

The work was done at the instigation of the City Welfare Department, of which the Health Department is an integral part. These children were examined by the consent of the parents and a physical record card is kept during their first eight grades of school life. In case any defect or illness was found, a recommendation card was sent home to the parents with the advice that they consult their own physician. No treatment whatsoever was undertaken.

The ideal plan, of course, is to follow up these recommendations and this is being done quite satisfactorily by school nurses and various social organizations.

During the past year a special nutrition worker has been engaged and nutrition classes have been started in several of the schools. The work has been carried out by a plan which requires the very necessary co-operation of the parents and provides for their instruction regarding the condition from every angle.

Age incidence is as follows:

Age	5	6	7	8	9	10	11	12	13	14	15
No. Boys	300	735	867	841	763	619	432	267	136	84	31

During the first year's work, using the United States Health Bureau Chart as a standard, 799 children of 2,840 examined were underweight, and during the second year 615 of 2,235 were underweight. This makes a total of 1,414 (27%) underweight children in 5,075 cases, the vast majority of these being real malnutrition cases. It is interesting to note that malnutrition is not confined to people of small income, in fact, some of the best records were made by schools on the outskirts of the city and in the factory districts, while the incidence in the better residence section was as high as 41% in one school. Malnutrition is found as prevalent among the wealthy as the poor. Physical defects, irregular hours of eating, sleeping, and poorly balanced diets, account for the condition in part. The good showing made by some school on the outskirts of the city may possibly be accounted for by more regular hours of eating and sleeping, home grown garden stuff, and the healthful outdoor exercise and lack of coddling characteristic of some wealthier homes.

Children of Polish descent attended St. Isador School and Sacred Heart School. The total number examined in these two schools was 360, of which 126 or 35% were underweight. In one Lithuanian school (St.

Peter and St. Paul), of 162 children, 20 were underweight, giving the low percentage of 12.3%. But one Lithuanian school was examined.

The following table shows conditions as regards underweight in the Holland schools:

Name of School	No. Exam.	No. Below Weight
Baxter Christian	163	58
Franklin Christian	60	19
Oakdale Christian	104	10
Alpine Christian	72	11
Pine Ave. Christian	76	38
Creston Christian	42	16
Total	517	152

The percentage then for the total is 29.4, just slightly above the average for the whole city. The fallacy of considering nationality as a factor is obvious when we consider the figures as shown in the above three groups and particularly in the last groups where they range all the way from 10% to 50%.

Of the total number of 5,075 male school children examined there were 322 (6.3%) cases of thyroid enlargement. As would be expected, the incidence gradually increased as the age of adolescence was approached. Due to the fact that most of these children are pre-adolescents no toxic cases were noted. The percentage of infected tonsils and carious and abscessed teeth (whether high or low) seem to bear no definite relation as to the etiology of the condition. Neither could malnutrition be considered as a factor in the cause. The presence of, or the absence of certain chemicals in the food or the drinking water may be the cause of the prevalence of the condition, as it has been shown in the work of the Dayton school children that by giving small quantities of iodides in the pre-adolescents, the condition has been quite uniformly prevented.

Diseases of the nervous system were found in 70 cases, of which 18 were post infantile paralysis, the majority having occurred in the epidemic of 1914. Chorea was found in two cases, facial palsy in one, enuresis in three, spastic paraplegia one, neuro-circulatory asthenia five, and the remainder would come under the classification of psychoneurosis. Undoubtedly the number of cases of enuresis, neuro-circulatory asthenia and psychoneurosis are much larger than represented by the above figures. More time and study and accurate histories being necessary for their discovery. Beyond the question of a doubt most of the psychoneuroses have their beginning with school children, the heredity and home training being important factors in their inception. Practically all cases of neuro-circulatory

asthenia were found in the poor posture as well as malnourished child, but it must be admitted that the endocrine glands, as well, may have a bearing on this condition.

Speech defects were found in 173 (3.6%) of the cases. For a number of years the schools of Grand Rapids have employed special teachers who have organized classes for these children and the majority of them are much benefited by this work. In the same school the deaf children are taught lip reading and speech.

Defective vision occurred in 542 (11.4%). A certain percentage of these cases are hereditary, while a still larger percentage seem to have as their etiology some focus of infection as tonsils, abscessed teeth, or the exanthems. It has been observed in some cases that vision returned to normal following the removal of infection elsewhere in the body.

Diseases of the eye, other than the defects in vision, were noted in 111 (23%) of the cases being classified as follows: Blepharitis, 42; internal strabismus of both eyes, 12; external strabismus left eye, 1; corneal scar resulting from injury, 4; interstitial keratitis, 1; congenital defect of iris, 1; conjunctivitis, 3; episcleritis, 1; ptosis of left upper lid, 5; ptosis of right upper lid, 2; lateral nystagmus, 2; rotary nystagmus, 1; corneal scar resulting from ophthalmia neonatorum, 2. One case of defective vision, as was proven later, was due to an optic neuritis resulting from a cerebellar tumor, although at the time the child was examined in school he had no symptoms other than those in vision.

A routine examination of the nasal cavity was not made so that only the worst cases have been recorded. These number 32 and consist for the most part of marked cases of deviated septum due in two cases to an old fracture. One case of atrophic rhinitis was included in this group.

MOUTH

There were but two cases of defects of the palate, one a cleft of the soft palate and the other a complete cleft and hare-lip.

Caries of the permanent teeth was discovered in 93 cases or 19.1%. This percentage is kept as low as it is because first, vigilance of school nurses employed, second there have been two school dentists on full time who care for the teeth of children of indigent families. The most noticeable mistake, even on the part of intelligent parents is to allow the six-year molars to decay, thinking they belong to the deciduous teeth. In 67 cases, or 1.3% there was evidence of hereditary lues of the teeth, these

cases consisting of the typical notched, peg shaped, upper middle incisors, and also cases where there were supernumerary cusps on the molars and occasionally the middle incisors. This type of molar tooth very often has a constriction band about the upper part, and the yellowish-brown enamel above the constriction seems to be much softer than in the healthy tooth. It is with difficulty that a tooth with this pathology is kept filled.

TONSILS

The tonsil group numbered 923 cases (19.4%), while the adenoid cases numbered 643 or 12.6%. Very conservative diagnosis were made in all of this group of cases and undoubtedly the actual number of infected tonsils and adenoids is larger than here represented. Among the factors considered in diagnosis were malnutrition, enlarged cervical glands, inflamed appearance of the tonsil and pillars, scarred-over crypts, ability to express pus from the tonsils, and simple hypertrophy to the degree of mechanical obstruction. A palpatory examination was made in each of the adenoid groups, also a nasal examination to rule out nasal obstruction.

The whispered voice was the only hearing test used and it revealed defects in 114 (2.2%) children, while acute and chronic suppurative otitis media as present in 30 cases. These cases were benefited as much, perhaps by an examination of this sort as any single group, because in the majority of instances the defect was unknown to the teacher or parent.

HEART

The cardiac cases totaled 85 (1.8%), and of this number 58 were functional. Of the functional cases a mitral systolic murmur was heard in 25 instances. Pulmonary systolic in 27, pulmonary and aortic 5, and pulmonary and mitral in 1.

As an explanatory statement regarding the low number of functional heart cases found, it might be added that practically all of these children were examined in the standing position only, the prone and lateral positions also being used in the cases where organic lesions were suspected.

The organic cases were classified as follows: Mitral insufficiency 14, mitral stenosis and insufficiency 1, mitral and aortic insufficiency 4, mitral stenosis 2,

There were six cases of extra systole, and one congenital heart case. A number of cases of cardio-respiratory arrhythmia was noted, but no accurate record made of their total.

True organic heart disease was noted,

therefore, in less than 1% of the total number of cases.

TUBERCULOSIS

In the entire group, pulmonary tuberculosis was suspected in only 79 cases or 1.5%. To one who has not made routine physical examinations of a large group of children. It is surprising to find how seldom the condition actually existed. Asthma was present in four cases and bronchiectasis in one.

HERNIA

Another class of cases, which in most instances was unknown to the parent, was the hernia group, 69 (1.5%) in number. Right inguinal hernia occurred 31 times, left inguinal 22, bilateral inguinal 6, umbilical 10 and femoral 1.

The genital abnormalities may be classified as follows: Phimosis 236 (4.9%), undescended testicle 14, varicocele 11, hydrocele 11.

SKIN

Diseases of the skin occurred in 99 (1.9%) cases, the largest part of this group being scabies, 32 in number. Eczema was present in 11 cases, ichthyosis 9, melanoma 3, ringworm 1, herpes lobster 2, furunculosis 4, sebaceous cyst 2, infective jaundice 2, epidermophyton inguinale 1. No record was made of the number of cases of verrucae or acne.

ORTHOPEDIC

Orthopedic cases, excluding conditions of the feet, numbered 36. This does not include any of the post-infantile paralysis cases, many of which were essentially cases to be benefited by orthopedic appliances. Two orthopedic clinics have been established in the city and practically all cases occurring in the homes of indigent parents have the benefit of special treatment.

It is interesting to note that signs, typical of Frohlich's syndrome, were observed in 11 cases.

Scaphoid scapulae was found in 266 (5.6%) cases. In certain instances this condition was combined with other evidence of hereditary leucic infection, but much more frequently it occurred without any seeming connection with the above disease. It is the opinion of the writer that it can, as a diagnostic point be used only in connection with other more positive signs of hereditary lues.

CONCLUSIONS

This work shows the large number of physical defects present in school children, many of which it is possible to correct or prevent. It also points out the necessity of a well organized follow-up system, experi-

ence having taught workers in this field, that suggestions are carried out, only after considerable persuasion.

DIEULAFOY ULCER OF THE STOMACH (Exulceratio Simplex)

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The purpose of this paper is to draw to the attention of the profession a rather unusual complication of gastric surgery, which though extremely grave and equally interesting, has received at our hands but scant attention in recent years.

The disease was first described by Dieulafoy, in 1898, as exulceratio simplex of the stomach and it was the occurrence of such a case in our practice a little less than a year ago which brought the many interesting features of its existence to our attention.

The case which I wish to present and discuss came under our care on June 13, 1920 and remained on our service at Grace hospital, Detroit, until September 2, 1920, when he entered the service of Dr. Max Ballin, who operated him at Harper hospital on September 7, 1920 and to whom we are indebted for the final pathological and clinical findings which make the whole case to us one of paramount interest. I wish at this time to acknowledge to Dr. Ballin and his associate, Dr. Norman Allen, my appreciation of their hearty co-operation in furnishing the data which makes the presentation of the case complete. I hope you will bear with me while I recite the history of this patient somewhat in detail.

On June 13, 1920 Abraham B, a tailor, Jewish, 31 years of age, entered our service with a diagnosis by his family physician of acute appendicitis. His chief complaint was a sudden, sharp pain in the epigastrium which came on 12 hours before. The family history was negative, past history measles in childhood, no other diseases. The patient stated that he was always well and strong and always able to eat everything. For the past six weeks he complained of some vague, indefinite pains in the abdomen, very mild in character with no definite relation to taking food. The pains were most noticeable when the bowels did not move well and a little soda or a mild cathartic relieved them. Food had no effect on the pain. Present illness began 12 hours before he entered the hospital with a very sharp pain in the epigastrium which doubled the patient up. During the day he had eaten nothing but, the weather being very warm, drank 20 bottles of cold pop. In no way did he feel ill until suddenly taken with pain. A physician was called, who, after an examination, decided he had acute appendicitis and advised an immediate operation.

Physical examination was negative, except for the abdomen which was markedly rigid with a board-like hardness, especially in the upper quadrants and the patient held himself very rigidly during the examination. Because of the rigidity and sudden onset of pain, a diagnosis of ruptured duodenal ulcer was made and the abdomen was opened by an upper right rectus incision.

On opening the abdomen, a great quantity of thick, yellowish, souplike fluid escaped. It was

noted that the parietal peritoneum was twice the normal thickness and much inflamed with many deeply injected vessels. About the lower portion of the stomach, duodenum and inner border of the liver was a thick, plastic exudate. Just beyond the pyloric vein was a thick scar in the duodenum about one inch square. In the center of this indurated mass was a perforation which easily admitted the tip of a Kocher forcep. The perforation was closed by through and through sutures of chromic cat-gut and folds of duodenum closed over the suture line in three lines of suture. A flap of gastro-hepatic omentum finished the closure. The usual posterior gastroenterostomy was done, large drainage tubes placed in the pelvis, left upper quadrant and upper and lower angles of incision and the wound closed in the usual way.

Following the operation the patient did well until June 22 when he had a severe malaena. Four days later, on the 26th, with no apparent warning, he vomited a large quantity of bright red and clotted blood. He again improved rapidly until July 4th, when he vomited a quart of blood, and again on July 6th and 9th he vomited large quantities of bright, red blood. On July 10th Dr. Vreeland assumed charge of the case and at once placed the patient under a strict Sippy regime, under which he improved rapidly until July 24th when, with no warning whatever, he vomited a quart of blood. Dr. Vreeland continued to treat the man with small frequent feedings and alkalization, but in spite of the most careful supervision, massive hemorrhages again occurred on August 8th and 23rd. Following every hemorrhage the patient improved somewhat, until the next hemorrhage, but with each recurrent attack, the total effect was a decided loss.

It may be noted at this point that the coagulation time was not increased, being recorded as $3\frac{1}{2}$ minutes on July 10th and that the hemorrhages appeared to be associated rather with the increase of hemoglobin than with the rise of blood pressure. Frequent tests of the hemoglobin were made, the lowest of which recorded 24% and the highest 30%. When the hemoglobin reached 30% the patient invariably had a fresh hemorrhage. The blood pressure ranged between 92 and 104 systolic. Needless to say all of this time the patient was gradually becoming weaker and it became quite evident, following the hemorrhage of August 24th, that our ultra-conservative methods were failing of the desired result.

On August 24th the patient's limbs and face became oedematous and he went into coma. That afternoon, Dr. Norman Allen saw him with me in consultation and recommended transfusion of blood to be followed by an immediate operation. On the 25th of August we gave the man 500 c. c. of blood and proposed operating the next day, but his condition then was improved to such a great extent, his hemoglobin had risen from 27% to 40%, his oedema disappeared and he seemed so bright that we thought further delay advisable. The chief factor which encouraged us to delay operation was the hemoglobin of 40%. Every preceding hemorrhage had immediately succeeded the rise to 30%, so we thought that the transfusion had added some element to his blood which would stop all future hemorrhages. On August 30th, we again transfused, giving this time 750 c. c. of blood. The following day he was apparently well on the high-road to recovery, taking nourishment readily with a pulse rate of 88 and respiration of 18. We felt much encouraged, but to our great chagrin on the night of September 1st, following an excellent day, he vomited three pints of blood and went rapidly

into coma again with an almost imperceptible pulse, rapid respirations and the general oedema again supervening. The patient's friends, fearing his imminent death, refused to permit another transfusion to be followed immediately by an operation, but preferred to take the man home to die. The next we heard of him was that he had come under Dr. Ballin's care and been operated on September 6th. I shall quote Dr. Ballin's report of the operative findings in full:

"Incision in inner edge of left rectus from xiphoid to navel. The stomach in itself is large. The duodenum is fastened by adhesions. No ulcer is palpable from outside of stomach. The stomach is incised by a $2\frac{1}{2}$ -inch vertical incision in the anterior wall. Through this incision the mucosa is brought out. There is a gastro-enterostomy admitting $1\frac{1}{2}$ fingers. A slight bleeding point around the otherwise smooth gastroenterostomy is sutured. Another free bleeding point is discovered on the large curvature which is closed up by cat-gut.

The finger introduced into the duodenum feels a stricture point at the place of former suture. No ulcer palpable in duodenum.

Stomach incision is closed by three rows of cat-gut sutures reinforced by omental graft taken from the gastro-colic ligament.

Spleen and liver appear normal.

Sponge count correct. Closed tight in layers with three waxed silk and linen."

The patient left the hospital at the end of five weeks entirely well, has gained about 60 pounds in weight, has had no stomach distress or vomiting whatever, and is at present conducting his tailoring business apparently none the worse for his harrowing experience. It should perhaps be added that a Wassermann examination on July 16th was reported negative, while one made on January 21st, 1921, came back four plus. We do not believe that the syphilitic process had anything to do with this patient's hemorrhages, else why should they promptly cease, never to recur, in the absence of antisyphilitic treatment following the mere suturing of a bleeding point.

We regard this case as one of exulceratio simplex of the stomach.

We have gone into the history of the case in such detail because of the relative infrequency of the condition and for the further reason that, although the condition has long been a well recognized pathological entity of itself, a careful search of the literature has failed to disclose any mention of the disease or the report of any massive hemorrhages from the stomach as the result of it since 1916. In the 1916, number of the *American Journal of Medical Sciences*, Moschcowitz has a comprehensive article on the subject in which he describes four cases in his own experience and completely reviews the literature for the preceding 18 years. Deaver states in an article in *Surgery, Gynecology, and Obstetrics* in March 1914 that during a careful review of the literature for the preceding 10 years he had found only six cases reported in which gastrotomy had been done. Perhaps the reason is an unfamiliarity with the symptoms and pathology of this dangerous affliction and

possibly if the condition had been mentioned more frequently in the literature some lives might have been saved.

In brief, to quote from Dieulafoy's description, the onset of the disease is as follows:

"A young person who has previously had neither gastric pain nor dyspeptic troubles, and is apparently free from any gastric lesion, is suddenly seized with malaise, vertigo, nausea, and weight in the stomach and vomits one or two pints of blood which may be either liquid or clotted. The first attack is rarely fatal, but on the other hand it very rarely happens that the attack does not recur and a few hours later on or the following day, or the day after a second, third or fourth attack of severe hematemesis takes place and is accompanied by vertigo and syncope so that in 24 to 48 hours the patient vomits several pints of blood."

The hemorrhages are severe from the first and are not preceded by premonitory bleeding of the coffee-ground variety. A history such as this, according to Dieulafoy, always suggests exulceratio simplex of the stomach and in the absence of clinical findings pointing to the rupture of oesophageal varices, infective angio-colitis, carcinoma of the stomach, etc., should lead to exploratory laparotomy.

Upon opening the abdomen, one finds an apparently normal stomach. There is no palpable thickening of the stomach wall whatever and no visible evidence of the internal pathology. One would be remiss in his duty in stopping the operation at this point without doing a gastrotomy. Even on opening the stomach frequently no pathology is seen, but on carefully brushing the mucous membrane with a gauze sponge, a small spurting vessel comes to view. To quote from Dieulafoy again:

"The ulceration is in the mucosa which must be smoothed out in order to show the lesion. Its depth is so little that in the living patient at the time of operation, and in the cadaver at the post-mortem examination, it may easily pass unnoticed without careful examination and a preconceived idea of its presence."

In Dieulafoy's second case he had to insist upon Cazin making a most thorough search of the mucous membrane in spite of the latter's objections. Finally after diligent search, a patent vessel was found which was sutured and the patient made an uneventful recovery.

Microscopically the lesion involves the mucosa and muscularis mucosa at the site of the ulcer and only there. The rest of the stomach is normal throughout and the arterioles of the ulcerated portion seldom show arteritis. At the base of the ulcer, the bleeding vessel is found, the anterior

wall alone of which is destroyed. In other words the vessel is not completely severed. To this factor Dieulafoy attributes the recurrence of the hemorrhages. If the vessel were completely severed the arterial walls would retract, the caliber of the vessel consequently be diminished and the hemorrhages cease. Because of the fact that the vessel is ulcerated through on only one side, the walls cannot retract. Hence when a hemorrhage occurs the blood pressure falls, clotting takes place in the vessel and the patient improves temporarily. Then as digestion goes on the clot is finally absorbed and a fresh hemorrhage ensues.

Etiologically, Dieulafoy regards the disease as an acute toxi-infectious process, and this hypothesis seems fully substantiated by the work of Letulle, Bezancan and Griffin, and more recently by the work of Rosenow. Certainly in our case we had the infectious agent in the bacterial products evolved by the ruptured duodenal ulcer. We are not unmindful of the recent suggestion of Ivy that secondary, acute or chronic ulcers may occur along the line of too firmly applied gastroenterostomy clamps, but Dr. Ballin assures me that such a factor is not to be considered in this case since the ulcer occurred at a point some distance from the farthest place at which the clamps could have been applied.

We do not contend that this case presents all of the features requisite for the typical Dieulafoy's ulcer, since the exulceratio simplex as originally described, occurs in cases in which no previous history of stomach trouble is found. The sudden onset of the hemorrhages, without premonitory symptoms, their repeated occurrence, the large quantity of blood vomited, the absence of any evidence of ulcer on the exterior examination of the stomach, the small bleeding point detected at the second operation and the ultimate, complete recovery of the patient following suture of the vessel, all conform to Dieulafoy's description to a nicety.

While the controversy rages between the medical man and the surgeon as to the relative efficiency of diet and alkalization as opposed to gastroenterostomy in the cure of ulcer, we would suggest that there is one type of ulcer as illustrated by this case in which both measures, adopted simultaneously, fail.

We offer no defense for our hesitancy in reopening this patient to locate the source of his secondary hemorrhage other than his manifestly poor condition, but we do feel that when we encounter this condition again

we may wait for the second attack of hematemesis, but never for the third.

DISCUSSION

DR. P. M. HICKEY, Detroit: I think that the reason I was asked to open the discussion was that I had an opportunity of seeing this patient at one time. That was after he had his first operation and had been transferred to Harper hospital. Dr. Balin asked me to X-ray the patient and see if I could make out on the roentgenological examination an ulcer of the stomach. On roentgenological examination we made out the existence of a patent gastro-enterostomy and that fact made the examination of the stomach for ulcer very difficult. It was very difficult to form any conclusion with regard to the motility and peristalsis. In other words, the opaque meal escaped by the gastro-enterostomy opening so rapidly that manipulation of the stomach and observation of the type of peristalsis was very unsatisfactory. Those cases that are referred for X-ray examination after gastro-enterostomy are always very difficult. Our roentgen ray evidence with regard to ulcer outside of perforative ulcer would be limited to the presence of a deformity of the stomach wall and even that is not so very definite because there is not enough deformity to be felt by the surgeon when he has his hand inside the abdominal cavity. There remain only the question of induration and the peristaltic wave coming down to the wall of the stomach. If there is a well-defined ulcer we are apt to have an encisure or drawing in of the stomach wall due to spasm of the muscle and due to the raw surface. If that is not present, we are obviously robbed of another item of evidence.

I would like to state, and I think I mentioned it last year in the symposium on ulcer, that it is the opinion of the men who are making roentgenological examinations in the large clinics that the roentgenological recognition of ulcer of the stomach which does not present definite pathologic changes which involve the muscularis is very scarce, being limited simply to those demonstrations under the fluoroscope of the peristaltic wave as it comes down across the stomach.

DR. C. E. VRIELAND, Detroit: I feel that this is one of the most remarkable cases of atypical ulcers that I have ever seen. I really feel that after seeing a great number of cases of ulcer during the last 10 or 15 years, I really know less about them. Roughly, we can say that perhaps 80 or 90 per cent of gastric ulcer—I hesitate to say peptic—are typical of what are classed as typical ulcers; perhaps 20 per cent are classed as atypical, but when we come to a case such as Dr. Kennedy has described we have an ulcer that is perfectly atypical in all respects, an ulcer that perforated without any digestive symptoms, without the classical symptoms of distress one or two or three hours after meals. Whether ulcers in the duodenum perforated through pressure or through some other infection, oral or otherwise, is a question we have not yet answered. It is not true ulcers are always due to infection of the tonsils, teeth or sinuses. I have showed that ulcers will form after distemper in dogs. There are trophic disturbances, thermic, mechanical and digestive factors, which produce ulcer. I think the digestive element is the factor that prevents the ulcer from getting well.

I think Dr. Kennedy's judgment was good in not attempting surgery in his case when the hemoglobin was so low. If the digestive action was playing any part in the ulcer, as it frequently does, then perhaps he would be justified in attempting surgery with a hemoglobin below 30 per cent. It is so much better when 45 per cent. If I had another chance with a similar case I think I would attempt to control the acid secretion at night as well as during the day. We have had several cases with symptoms of hyperchlorhydria and where we controlled the acid at night as well as during the day, the results were very much better. Again, it is very difficult to know whether you are controlling the acid in a hemorrhage case, because no one will dare to pass a tube within 10 days after a

hemorrhage and with a man having a 27 per cent hemoglobin who would dare to pass a tube?

I think MacCarty has described the typical pathology of peptic ulcer better than Moynihan has. The pathology of Dieulafoy ulcer does not indicate peptic ulcer in the usual point. I believe that after two hemorrhages one would be justified in proceeding to do surgery. It is hard to say what could be learned by routine roentgenological examination in a number of cases with low hemoglobin. There are many atypical hemorrhage cases. For example, we have one massive hemorrhage and the case will stop bleeding for a long time.

DR. G. H. PALMERLEE, Detroit: This paper has been rather interesting to me because I believe I had such a case six years ago. I did not recognize it at that time but since Dr. Charles Kennedy has had a similar experience in discussing it with him, I recalled the patient I had about six years ago. It seems that the description that Dieulafoy gives of this type of ulcer corresponds to the case I saw. It was in a young, unmarried woman. She felt rather nauseated and vomited great quantities of blood and fell in a faint on the bathroom floor. The family called a neighboring physician and she was sent to the hospital. I saw her a little later and she showed very marked signs of having had a hemorrhage. The first doctor who saw her said the blood passed was bright red as well as coffee-ground. The diagnosis was then made of ulcer of the stomach and preparation was made for operation the next morning. During the night she had another hemorrhage and on placing her on the table the next morning for operation, she had another vomiting spell, vomiting a large amount of bright red blood and coffee ground material. An incision was made in the median line above the umbilicus and a careful survey made of the stomach with absolutely no sign outwardly of ulcer. Feeling the stomach with the hand I could not feel any induration or thickening or any evidence whatever of any trouble inside the stomach, though we were practically certain that she must have had a hemorrhage from the stomach, otherwise she would not have been likely to vomit blood. The pylorus seemed to be normal. There was no unusual thickness or cicatrization or any indication of obstruction or ulceration at that point. An incision was then made in the anterior wall of the stomach, three inches in length, and on looking into the stomach there was no evidence of any pathologic process there. I was disappointed and very much chagrined to find I had done an unnecessary operation. I made a very careful survey of the mucous membrane of the stomach and yet I could not see anything. I determined to find the site of hemorrhage and put my hand behind the stomach and pushed the posterior wall out into plain view. I discovered right where my finger pointed a bleeding point. I closed it with catgut and cauterized it with silver nitrate, then closed the wound in the stomach and the wound in the abdomen in the usual way. We had a Wassermann made and the report was 4 plus positive. I thought it was due to a luetic infection and that I had made a mistake, so I instituted antiluetic treatment and the girl did very well for about a week. At the end of a week she had another tremendous hemorrhage and died. I supposed at the time that I was dealing with a specific cause for the hemorrhage. It may have been a Dieulafoy ulcer.

DR. CHARLES KENNEDY, Detroit, (closing): I have not very much further to say, except that while these cases are rare, I do not think they are so rare that we need to disregard them entirely. I recently attended a clinic at Ann Arbor where Dr. Peet reported a case corresponding almost exactly to mine so far as the ulcer itself was concerned. He made a diagnosis of gastric ulcer from the hemorrhage the man had had some two or three weeks before he operated. On opening the abdomen he was unable to find any evidence of an ulcer. He put the patient back to bed and within four or five days after the operation the man had a tremendous hemorrhage and vomited three pints of blood. Then it was decided to do a gastrotomy.

At the gastrotomy he found exactly this condition. On the greater curvature of the stomach, there was a very small crater with a vessel crossing it, which was spurting blood constantly. He tied it off and it had been two weeks since the operation when I heard the case reported and the patient was well then.

The outstanding features of this type of ulcer it would seem to me are the suddenness of onset without any preliminary symptoms, the vomiting of a large quantity of blood, and recurrence of the attacks. I believe they should all receive medical treatment at first. If we had another case we would ask Dr. Vreeland to control the acid during the night. I think that was the factor which caused the hemorrhage. It should be stated that the hemorrhages occurred in this man either during the night or early in the morning, so it may be that the acid was a factor and if the acid were controlled the man might not have had the severe hemorrhage. I would give that method a trial the next time.

ULTRA VIOLET RAY THERAPY— ITS APPLICATION IN NOSE, THROAT, AND MOUTH AFFECTIONS

LEO C. DONNELLY, M. D.
DETROIT, MICH.

Having administered Ultra Violet Rays approximately 7,000 times, I feel justified in alluding to the subject from time to time.

As many of these treatments were given for cases coming under the above category, the information gained thereby seems worthy of dissemination for the benefit of all.

Let's briefly restate that Ultra Violet Rays sterilize infected tissues.

Germs are destroyed in a short period of time after coming in contact with the rays. From laboratory experiments which prove the above, it has also been demonstrated that the red blood cells absorb and conduct these rays to different parts of the body, there to carry on the work already begun at the surface.

Toxins are broken down in the same manner that germs are destroyed, and it is a safe assumption that, after absorption and transmission as aforesaid, the tendency of the rays and reactions therefrom show:

Hemoglobin is increased.

White blood cell content is normalized.

Blood and lymph flow are both increased.

Congestion is certainly relieved, cellular tissue is nourished, and elimination of waste products greatly accelerated.

There is a direct action on the nervous system.

Effects observed lead one to the conclusion that nerve endings are locally affected, while at the same time producing some general action on the central nervous system.

Acute colds may be prevented by Ultra Violet Ray treatments.

In general, my technic includes the appli-

cation of the rays to both nostrils, the posterior nasal pharynx and tonsils, by means of the Kromayer lamp. I attempt to sterilize without burning the mucous membranes, and include with this treatment a general radiation of the entire torso, anterior, posterior and sides, and at times further supplement same by subjecting the body to the heat and radiant energy from a high power Radiant lamp.

Chronic colds, whether in head or chest, are immediately benefited if treated in this manner. If persisted in for a time, complete relief may be witnessed. The patient uses the word "cured."

My records hold no evidence of any such patient developing pneumonia or influenza, so I reason it is logical to treat such cases as a means to prevention.

I have many times had the experience of receiving patients whose symptoms indicated the approach of such conditions, and as often seen them restored to normal without these developments.

It is advisable to increase the dosage with each succeeding treatment, both the Alpine Sun and Kromayer lamps being used. A very large percentage of all cases with chest involvement shows relief from pain. This holds true in pleurisies, whether tubercular or pneumonic, or in empyema.

In a previous publication, I referred to the technic as used in sterilizing nasal and throat diphtheria carriers. By this method, practically 100 per cent of such cases are rendered non-infectious.

I have also made reference to my own experience substantiated by another physician's report in the sterilization of the parotid gland in cases of mumps. The Ultra Violet Rays very quickly removed the pain, shortened the duration of the disease, and prevented further involvement.

I have treated several cases of osteomyelitis of the jaw, all of which were apparently cured.

Repeatedly apical abscesses have yielded to this method of procedure, infections adjacent to bridges and other dental structures cured, and today many dental surgeons make use of Ultra Violet Rays in the treatment of pyorrhea and kindred mouth infections. The extraction of infected teeth is rendered less formidable by previously sterilizing the gums, using the Kromayer lamp for one minute. After extraction an application of Ultra Violet Rays, using the appropriate quartz applicator will stop capillary bleeding and sterilize the tooth socket. The soreness following extraction will disappear in about one-fourth the usual time.

In this connection, it was interesting and instructing to hear what Dr. Bainbridge of the Naval Hospital in Brooklyn, N. Y., said on this subject at a recent clinic held in Grace Hospital Detroit,

This form of treatment apparently cures acute sinus infections, without operative interference. The intense headache is relieved. Pus in the sinuses becomes thinner, thereby making drainage easier; normal ventilation of the sinus is resumed.

Remembering that various sinuses are separated from the nasal passages by bone not much thicker than an egg shell, it is evident the rays from the Kromayer lamp can penetrate such formation and produce the results noted above.

Chronic sinus infection, while requiring more treatments, nevertheless shows definite benefit to be derived. The majority of patients, some of whom have been treated in various ways for a period of twenty-five years, attest that they derive greater good from this procedure than anything ever used before. These cases seem to remain permanently benefited.

Acute tonsillitis may be aborted if early action is instituted. Once established, the duration of the disease may be shortened and its severity greatly lessened.

We have seen cases terminated with a single treatment.

The toxins usually thrown into the system in this condition are destroyed, hence patients suffer less than what we have usually considered typical of tonsillitis.

I have no doubt that chronically infected tonsils can be sterilized by repeated doses of Ultra Violet Rays.

It is easy to reduce the size of hypertrophied tonsils by this means. In selective cases, we advise the further use of X-Rays or radium.

It would be only natural to assume that some cases will go on to the stage where operative procedure becomes necessary, but let us add in this connection, if such is the case then treatment with Ultra Violet Rays previously has been more than justified for the following reasons:

Removal is safer and easier.

Subsequent healing is hastened and there is much less discomfort than in cases not so treated. Furthermore, post operative complications, lung abscesses, etc., will surely be much less in evidence.

We all realize that enlarged cervical lymph glands may be caused by tonsillar or dental infection. Because we have witnessed the relief obtained in many such

cases, we advise our colleagues to administer Ultra Violet Rays in such conditions.

Tubercular glands may be greatly benefited, those discharging pus not so easily. X-ray treatments, given at the same time, aid the rapidity of the absorption. Some cases need curetting, but even then the rays greatly assist.

Some authors report Hay fever attacks to be entirely terminated by this method of procedure.

After repeated attempts to control this condition in many cases, I am conservative in reporting some apparently cured, many benefited, while yet others were resistant to this remedial agent. I am endeavoring and hope to perfect a technic that will show more complete control in this troublesome ailment.

Some of the most interesting work that I have done has been in treating numerous cases of atrophic rhinitis or ozema; medical literature generally classes this condition as practically incurable.

My patients all had ozema over periods from ten to twenty-five years, during which time medical treatment was given more or less constantly. Results in these cases showed that the ever present disagreeable odor was eliminated; crusts formed less frequently, and then smaller and softer, and could be dislodged without bleeding.

One very gratifying point is that the periodical headache disappears; and another is the tendency to materially lessen the general lassitude in such cases, and the evidence of increasing bodily resistance shown symptomatically. Satisfactory results are undoubtedly due to changes in metabolism.

It is a pleasure to report that in a recent conversation with one of our leading specialists who uses a Kromayer lamp, he gave it as his opinion that ozema will eventually be cured by this means.

This very naturally does not mean that atrophic bone and mucous membranes will be restored, but that all the other contemporary factors will be cleared away.

In summarizing results obtained, it is eminently fair to all concerned to state that intelligent application of Ultra Violet Rays in general nose and throat affections is always warranted.

We give diphtheria antitoxin to diphtheretic patients. If administered in the early stages in proper dosage, recovery is assured and the patient suffers practically no ill effects. The antitoxin combines with, and neutralizes the diphtheria toxin.

Likewise, patients suffering from acute illness having to do with nose and throat

affections, receive immediate relief following Ultra Violet Ray treatment. The pain, oedema, and general toxic symptoms are relieved.

Ultra Violet Rays kill germs, break down toxins, and restore through their action in the blood and cellular tissue a normal local metabolism.

MITRAL STENOSIS—A STUDY OF SIXTY-TWO CASES

WALTER J. WILSON, M. D.
DETROIT, MICH.

The most interesting valve lesion to study is that of mitral stenosis. This is true because of its direct influence upon the heart muscle, producing various grades of degeneration and with it various types of arrhythmias. What may be termed the indirect effects of this lesion are the various forms of embolism. No heart lesion can present such a great variety of symptoms, both arising from the heart itself and presenting in the most remote parts of the body.

While congenital lesions of this type have been described, none appeared in this series of 62 cases. Our opinion is that the vast majority of these cases are due to a mild streptococcus infection. This infection may progress steadily for years or may have quiescent periods with exacerbations of acute infection. That is to say the lesions are usually progressive in character, both as regards the valve itself and particularly as regards the myocardium. However, in childhood, in a few cases, with the growth of the heart in general, improvement, both in the physical signs and symptomatology, has occurred.

AGE INCIDENCE

The youngest patient seen was a girl, 10 years of age, while the oldest patient, who was seen in consultation a few days before death, was 58 years of age. In the group from 10 to 20 years of age, there were five male and five female cases, making a total of 10. In the group from 20 to 30 years of age, there were 12 male and 10 female, making a total of 22 cases. In the group from 30 to 40, there were five male and 13 female, making a total of 18 cases. In the group from 40 to 50, there were two male and five female, making a total of seven cases. In the group from 50 to 60 years of age, there

were no males and five females. This makes a total of 24 males and 38 females, which shows the usual preponderance of the female sex, for which no adequate reason has ever been discovered, but which is a clinical fact.

ETIOLOGY

The frequency with which mitral stenosis occurs, coincident with streptococcus infections, is striking. Tonsillitis occurred in 15 cases, arthritis in 29 cases, chorea in four, growing pains in one, appendicitis in one. Other sinus infections were present in some of the cases. The importance of focal infections, such as of the teeth, of the tonsils, of the sinuses, can in this connection be hardly over-estimated.

DIAGNOSIS

The diagnosis in the cases with regular rhythm depends on the presystolic roll with or without a presystolic thrill, a sharp first sound, and an accentuated pulmonic second sound. A diastolic murmur, present usually at the left base, occurred in 25 of the 62 cases. When this occurs with a clear aortic and pulmonic second sound and without the accompanying signs of aortic regurgitation, that is a collapsing arterial pulse and capillary pulse, it is a very valuable sign, as it persists, even after the auricle has gone into fibrillation. This diastolic murmur to which we refer, usually mid-diastolic in time, is of course not to be confounded with the presystolic roll, which is also diastolic in time, but which disappears when the auricles go into fibrillation. The left ventricle receiving less blood than normally, in the majority of cases is small, and the apex beat not displaced. In certain cases there is a fairly considerable amount of regurgitation and the left ventricle may enlarge.

There must be, it may be said in passing, a certain amount of mitral regurgitation in every case, as there is a permanently patent valve, but in many cases it is so slight that it is not evident on auscultation. Of the cases studied, 33 had a systolic murmur. In two cases of this series there was evidence of aortic involvement, and the diagnosis of aortic stenosis was made. It is inevitable that in such cases left ventricular enlargement takes place.

In the cases in which the X-ray has been used, in every case an enlargement has been discovered in the area of the left auricle. This is due not only to left auricular enlargement, but also to a swelling of the pulmonary artery and conus arteriosus. The percussion findings, with one or two exceptions, agreed with the X-ray findings. In one case recently seen, in which in-

ceptible to percussion, nevertheless the X-ray revealed the fact that there was such creased dullness in this area was not per-enlargement. The percussion findings referred to are the measurements secured in the third left intercostal space, using the midsternal line as the base line. While the normal distance is four centimeters, in these cases we usually discovered that the left border was five to six centimeters from the midsternal line and in exceptional cases was as far out as nine centimeters.

SYMPTOMATOLOGY

The presenting symptom in most of the cases is shortness of breath on exertion. Another very common symptom is the presence of a cough, of a dry and irritating character, frequently observed without any accompaniment of rales in the lungs. As cardiac decompensation appears, rales become evident at the lung bases, and sometimes there is haemoptysis. This has led on some occasions, as in Case 526 to a mistaken diagnosis of tuberculosis. In this particular case the compensation was good, there was no evening elevation of temperature, and the pulse rate was 70. There were no areas of dullness, increased vocal fremitus, bronchial breathing, nor any rales present. The diagnosis of tuberculosis was made largely on the X-ray findings, in which some signs of an old tuberculosis may have been present. The medical management in the factory in which he worked wished him to be stationed in a department where there were known tubercular cases, to which he strenuously objected. In a case in which there is decompensation, with a consequent rapid pulse, difficulty may be apparent in differential diagnosis, which would be increased if there is an infectious element present with consequent fever. In such a case the absence of the regular temperature curve of tuberculosis and the presence of rales at the lung bases, instead of at the apices, would make the diagnosis clear in nearly every case. In moderately advanced cases of tuberculosis the presence of tubercle bacille in the sputum would make the diagnosis certain.

Edema was present in 17 cases; this was usually of moderate quantity, present in the feet and legs. In cases with kidney complication, which have been uncommon in this series, the oedema may be of the most advanced grade. Acute pulmonary oedema occurred in two of the cases. In one case this was a general pulmonary oedema, while in the other case, who suffered four attacks in six months, general oedema occurred twice and right lung oedema on the other

two occasions. The oedema in both cases was markedly relieved by the use of strophanthin, in 1-250th grain doses, in one instance being used intravenously, the other subcutaneously. This was followed up by the use of caffeine-sodium benzoate.

The symptoms of embolism varied according to the location of the emboli. The diagnosis in the five cases of cerebral embolism depended upon the fact that there was no elevation in the usual blood pressure, while there were symptoms of paresis of various muscles. Of these five cases, four were left-sided as there was difficulty in the speech. Hemiplegia of a more or less degree occurred in all these cases, four being right-sided and one left-sided. In two of the cases, considerable improvement took place, but in three death ensued. In one of the cases of embolism, who had had pulmonary oedema, an acute attack of right pulmonary oedema occurred, which cleared up in about 12 hours but the patient became unconscious and the left side as well as the right became paralytic and she died three days later. In this case it was our opinion that cerebral embolism had occurred on the right side as well as on the left.

Pulmonary infarction was diagnosed in life upon one case in which a small area of dullness was discovered in the right lower lobe, associated with increased coval fremitus and bronchial breathing. On autopsy this was discovered to be a fact, as well as infarction in the kidneys and liver. Thrombosis in the external jugular veins was also present and a subphrenic abscess was discovered. In none of these cases was there present paralysis of the left recurrent laryngeal nerve. A reduplicated second sound was present in some of the cases. In case 963, a persistently rapid, though regular pulse of over 100 was present, which responded to treatment with a daily dose of 60 minims of tincture digitalis.

ARRHYTHMIAS

All types of arrhythmias may be developed in the course of the cases of mitral stenosis. In a case in which there is acute disturbance of the myocardium, practically every form of arrhythmia may be present in the course of a few weeks, or even within 24 hours. In case 893, who was seen on the day following an operation for mastoid disease, sometimes auricular fibrillation was present, on some occasions paroxysmal tachycardia and again premature systoles. The patient had improved under treatment so that the pulse was regular with very occasional premature systoles, developed a

fever on the day that she was to be sent home from the hospital, and within 48 hours died from a streptococcus pneumonia, the so-called flu epidemic having returned. In case 191, who was first seen in June, 1915, on the first examination premature beats were noted. A short time later, while in the office, a short run of paroxysmal tachycardia took place. The patient was seen at infrequent intervals from that time when only premature beats were noted. On March 5, 1920, she appeared in the office, in marked distress. At this time the heart rate was 140, and the rhythm was absolutely irregular. The lungs were filled with moist rales and there was a distressing cough. Under the use of 293 minims of tincture digitalis, in seven days the cardiac rate, as shown by auscultation had dropped to 50 per minute. This patient is now taking 15 minims of tincture digitalis a day, with a normal rate, although the irregularity persists. The tendency to arrhythmia is shown by the fact that in all the five cases over 50 years of age, the auricles were fibrillating.

DEATHS

The known deaths in this group are 17. In the 10 cases from 10 to 20 years of age there were three, two due to heart failure and one to pneumonia, in one of whom auricular fibrillation was present. In the 22 cases from 20 to 30 years of age, two died of pneumonia and one of heart failure, one of whom had auricular fibrillation. In the 18 cases from 30 to 40 years of age, there were three deaths, one due to pneumonia and two to cardiac failure, one of whom had auricular fibrillation. In the seven cases from 40 to 50 years of age there were three deaths, two due to cardiac failure and one from cerebral embolism. Two of these cases had auricular fibrillation. The five cases in the group from 50 to 60 years of age are dead, all having had auricular fibrillation. Three died of heart failure, one of cerebral embolism, and one of general embolism.

TREATMENT

The general rules of treatment for such conditions have been followed.

DISCUSSION

DR. J. L. CHESTER, Detroit: The doctor spoke of mitral stenosis usually following infection. The diagnostic problem of heart disease in children is a much greater problem than in adults, because in children there are many anomalous conditions.

In adults we can divide heart conditions into four groups, mitral, rheumatic, syphilitic and arterio-sclerotic. History is important in making the diagnosis of any heart condition. The doctor spoke of the diastolic murmur as well as the late diastolic murmur, or presystolic ending in a sharp first sound, as being of importance in making the diag-

nosis. There is a significance. More importance is to be attached to the diastolic murmur.

Now, the prognosis. If you have not a diastolic murmur extending from shortly after the second sound all through diastole, your condition is much more serious, and the stenosis is much greater than if you have only the presystolic murmur.

What the doctor said about heart muscle is of importance and is something that we have learned more and more about of late years. It is what the muscle can do that counts.

He spoke of hemoptysis in some cases, and the case being examined for tuberculosis. It seems to me with careful examination and careful history, that that could easily be avoided. However, there is another thing to be thought of. We may have a stenosis and a T. B. in the same case. His X-ray plates show a typical heart with enlarged orifice. Particularly do we get this as the case increases, and as there is a backing up on the right and left auricle and a backing up through the lungs and the strain put on the right heart. We get the typical mitro-stenotic heart. The Flint murmur may cause some confusion in the diagnosis from the simple presystolic murmur, but the Flint murmur being a murmur of aortic insufficiency, and with that Duroziez's sign, the Corrigan pulse and usual history of specific infection, ought to make our diagnosis easy. The Graham-Steele murmur may be confusing, but the Graham-Steele murmur comes late, and only when the mitro-stenosis has gone on for a long time. With the Flint murmur, it starts immediately with the second sound, and usually continues through diastole, while with the murmur or mitro-stenosis there is quite an interval between the second sound and the early diastolic murmur.

DR. W. H. MARSHALL, Flint: I would like to ask if he had any experience with the use of amyl nitrite in bringing out the physical signs of mitro-stenosis. Generally stated, my impression is that my statistics amount to much more than his. That is my impression. The more and more I see of the cases, the more I am convinced there are re-infections. The most important thing, after they get in decent shape, is to search for all foci of infection and clean them up.

DR. WALTER J. WILSON, Detroit, (closing): I have not had any experience with amyl nitrite. These cases were all, I think, quite clearly diagnostic. I did not, for the reasons of statistics, want to use any particular methods to bring out the presystolic. I absolutely agree, as far as the history is concerned, as to the probability in many of these cases—most of these cases—of re-infection. That, it seemed to me, was the particular cause. One of these cases had tonsils which had not been removed, and her symptoms appeared after the tonsillitis. Within a reasonable time we had the tonsils out.

The importance of re-infection can hardly be overestimated. The prevention of that is the real thing, so far as the occurrence of symptoms is concerned, which will be, of course, of benefit to the patient. The great thing I would like to bring out is that it is very important, especially in cases of mitro-stenosis, to be able to make a diagnosis. I really think that the average man, if he gives careful attention to the basic points, will not have a great deal of difficulty in making the diagnosis.

The prognosis should always be guarded. Something may happen like a stroke out of a clear sky. While not saying anything directly to the patient, it is well to have the family, if possible, notified in a case of this type that such complications may happen. Give them an inkling of it so that it won't come as a surprise. That is the great thing doctors should do. They should give the family the prognosis, so that the family will be prepared for any eventuality. If you do that in cases of this type, then I think people will be satisfied with the care which we give the patient.

Note: Since Sept. 1921, we have had under observation, a case of mitral stenosis, in which auricular flutter occurred, at which time there were voice changes due to pressure on the left recurrent laryngeal nerve.

PROGRESS AND PROMISE IN THE NEW X-RAY TREATMENT OF CANCER*

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BATTLE CREEK, MICH.

The curative properties as well as many of the physical uses of the X-rays are largely due to their penetrating power. Shortly after Roentgen's discovery, the interest of X-ray began to center on the production of more penetrating X-rays. As the years have brought more powerful apparatus and more efficient tubes, the successful use of the ray as a means of treating disease has advanced from its first conquests over certain skin lesions, including skin cancers, to more and more deeply seated malignant tissues. Yet, on the whole, the treatment of cancer has been distressingly disappointing, except in the case of lesions located on the skin or fairly close to it. The introduction of radium with its highly penetrating gamma rays, made possible the conquest of a few deeply seated cancers previously regarded as intractable, thus demonstrating the efficacy of very penetrating rays when appropriately administered. This greater success of radium is in large part due to its compactness, which permits its application in close contact with the disease or by actually burying it in the cancer growth during a surgical operation. Radium alone, however, has failed in the cure of most of the internal cancers as well as in the external growths when internal metastasis (extension) has taken place.

RADIUM

The success of radium, where the X-rays had failed, led at once to the recognition of the importance of securing more penetrating X-rays, for the gamma rays of radium have a shorter wave length, and are therefore much more penetrating than the shortest wave-lengthened X-rays produced up to the time radium was generally accepted for the treatment of deep cancerous growths.

COOLIDGE TUBE

In 1913, Dr. W. D. Coolidge of Schenectady, New York, research physicist for the General Electric company, brought out a new X-ray tube, now well known to the world as the "Coolidge Tube," which has revolutionized the X-ray treatment of certain diseases, notably cancer. It should be explained that the penetrating power of a beam of X-ray depends upon the voltage of

the electrical current passing through the X-ray tube—the higher the voltage, the more penetrating the resulting X-rays. The earliest treatment work utilized X-rays made with a current passing through the tube at scarcely 40,000 volts. Gradually more powerful tubes were developed, so that by the year 1910, currents of 70,000 to 80,000 volts were being utilized. With the introduction of the Coolidge tube, this X-ray generating current voltage was immediately raised to 125,000 volts. The writer was fortunate in receiving for research purposes a half dozen of the earliest Coolidge tubes before their general introduction, and with the assistance of Dr. Coolidge, who accompanied the tubes to the Battle Creek Sanitarium, succeeded in developing the Coolidge-tube-treatment technic of deep irradiation, which has been generally employed throughout the world from 1913 until within the last few months. Lately, a most important advancement has been made, which I will now undertake to briefly explain.

Coincident with the development of the Coolidge tube in this country, German physicists, notably Dessauer of Frankfort, had focussed their attention upon more powerful X-ray generating apparatus, utilizing the ordinary pre-Coolidge "gas" tube with special water cooling devices; and gradually increased the voltage of the tube current, with consequent improvement of penetrating power of the resulting X-rays. Every X-ray tube gives off a mixture of X-rays of varying penetration. In the beam of rays leaving the tube there are soft (or slightly penetrating) as well as hard (or deeply penetrating rays. It is the soft rays which are likely to damage the skin, and since they are produced even in greater abundance than the highly penetrating radiation, some means must be employed to exclude them. For this purpose the principle of "filtration" was introduced. This consists of the interposition between the tube and the patient of some substance slightly obstructive to the passage of the rays, by which the softer rays are effectually barred, while the passage of the hard, penetrating rays desired for the treatment of the tumor is not at all hindered. Leather was first employed for this purpose; later, thin sheets of aluminum. Gradually, experience indicated the desirability of restricting the radiation to the use of the very penetrating rays. In 1915, the writer, following the work of Dessauer, began the employment of zinc and copper filters, half a millimeter

*Lecture presented in the Battle Creek Sanitarium Clinic, October 19, 1921.

in thickness; and utilized for the production of the hard X-rays a specially constructed X-ray apparatus of high voltage capacity.

The World War brought interruption to further clinical development along this line in the United States; but the laboratory research continued. Coolidge produced experimental tubes capable of withstanding still higher voltages, and with his associates provided the necessary accessory instruments for experimentation with voltages upwards of 200,000. The foreign investigators also were actively at work carrying on some very extensive physical investigations concerning the effects of the X-rays produced at this high voltage and continuing the clinical application of these highly penetrating and well-filtered X-rays in the treatment of disease, especially in the war against pelvic cancers in women. (In the United States, a similar clinical effort was being made to secure improved results from radium applications. America has produced nearly all the radium today in use in the world, and American effort naturally turned more to radium than to the X-ray method, which at that time seemed less promising of success).

As far back as 1914, reports from Europe told of cures of deep-seated cancers, especially of the breast and pelvic organs, the X-ray being employed alone or in combination with radium, and at the close of the great war, these early reports of success were not only repeated but even enlarged upon. Even in the cases ultimately succumbing to malignant disease, the degree of palliation following the X-ray treatment with the high voltage tubes was infinitely greater than was offered by any other method, and the patient was often restored to a useful and comfortable existence of at least several years.

In several of the university towns, notably at Erlangen, Freiburg and Berlin, the surgeons in charge of the Women's Clinics have reported a long series of successful results. Patients whose expectation of life, even of painful, miserable existence, was not more than a few months, were given a new lease of life, extending in several hundred instances over periods of several years; and in not a few cases the results were an actual cure. True, these unfortunates may yet some day fall victim to cancer; but the palliation and practical freedom from symptoms over a period of several years is far superior to anything offered by any other means known to science. In this country,

similar palliative results have crowned our efforts; but this has been in greater part due to the large quantities of radium available, although we have assiduously continued the contemporary treatment with the hardest X-rays at our command, using the radium mainly for internal and the X-rays for external application, thus, as it were, attacking from all sides, while simultaneously dropping bombs in the midst of the enemy stronghold.

During the last two years, the finishing touches have been applied to our radiologic armamentarium. Through a series of fortunate circumstances the writer was placed in possession of some of the very latest Coolidge tubes of unusual size and capacity and, using these with the machine especially built in 1916, he has for nearly a year been supervising the treatment of a large series of cancer cases, hopelessly inoperable, and therefore doomed, unless this new campaign proves successful. It is unfair as well as unscientific for any clinic to arouse too much hope in the hearts of victims of this dread malady, and, although grateful and unprecedented palliation has been seen, it will be unwise to make any statements regarding the possibility of cure until the method has been continued for several years longer. But it is not too much to admit that the results are most encouraging. We have seen almost complete disappearance of all outward signs of malignant disease in some instances, especially in breast cancer, within a few weeks' time, following a massive high-voltage X-ray application. But, as before emphasized, it is not right now, nor will it at any near date be right, to draw positive conclusions.

Deep-seated cancer is a dread malady, which in its inoperable stages has baffled the combined efforts of medical scientists; and it would seem almost presumption to entertain seriously the hope that a means has been found for successfully dealing with any large proportion of these sufferers, including those beyond the operable stage. Yet, after comparing the results obtained during the earlier months of this high-voltage therapy with those more recently secured with our new installation with 280,000 volt capacity, the writer cannot but feel considerable elation over the immediate effects of the application of these ultra-penetrating X-rays which physical investigations show approach very closely to the very deeply penetrating gamma radiations from radium.

These highly penetrating X-rays have many advantages over radium for external

application although radium will be more than ever in demand for use in tumors and in the cavities of the body. The enormous quantity of X-rays provided by a single X-ray tube with the powerful generating apparatus above mentioned, literally bathes the tumor with radiations in such amount that one X-ray tube may be comparable to several grams of radium operating under the same conditions of filtration and distance from the skin. And because of the inverse-square law governing all radiation, it is highly important that the radiant source, be it an X-ray tube or radium, be situated at a considerable distance from the skin of the part under treatment, in order to produce homogenous radiation—a very, very important factor of success.

As before suggested, some of the immediate results have been startlingly encouraging. Following a single irradiation, ulcerating recurrent breast cancers have healed over and nodules have disappeared. Lameness from metastatic involvement of the pelvic bones has subsided so that some bed-ridden patients have become able to walk again. Cases of pancreatic cancer have regained appetite, strength and weight, and several have returned to work. In several cases, distressing urinary symptoms attending cancer in the pelvic organs, not only uterine cancer, but also prostatic, rectal, and bladder malignancies, are showing abatement. A prostatic case is regaining appetite, weight and strength, and his urinary retention is lessening. An enormous uterine sarcoma has reduced one-half within a month. Several fixed uterine carcinomas have become movable showing marked retrogression of the disease. A vesicovaginal fistula of cancerous origin has closed. The writer does not wish to be misunderstood; a few similar results have broken the monotony of nearly constant ultimate failure in handling inoperable cancers with less penetrating rays during the last decade, although the palliation has been definite; but that such prompt response as followed our recent therapeutic efforts gives new ground for hope of far greater success cannot be denied.

And this hope is further warranted by the astounding figures emanating from Central Europe as reported in current medical literature. From one clinic a world-renowned gynecologist (Opitz) cites 63 cases of cancer of the uterus treated since January, 1919, some of them operable. Of 41 cervix cases, 22 had receded, 10 were not influenced, and 9 patients died. Of 22 cases of cancer of

the body of the uterus, 17, or 80 per cent, receded, two were not affected, and two patients died. The deaths resulted from extension of the disease in spite of the treatment.

From another clinic, Wintz reports about 3,000 cases of cancer of the uterus radiated in the last seven years. Approximately 500 of these were carcinoma of the body of the uterus; 70 per cent showed arrest of the disease over a period of four years. In the cervix cases, 45 per cent were alive after four years. The above figures are quoted from Sittenfeld, who also reports having seen in one day at a certain cancer clinic 35 patients with cancer of the breast which had been radiated two, three or four years previously—nearly all of them with gratifying results.

The writer is also thoroughly convinced of the efficiency of thorough pre- as well as post-operative irradiation in surgical treatment of cases considered operable. Since 1910, both Dr. Kellogg and the writer, as well as some other surgeons, have made it a rule to precede as well as follow all operations for malignancy with thorough irradiation. Experimental tests as well as our own clinical observations have convinced us that radiated cancer cells do not grow on transplantation. We felt it incumbent upon us in the interests of the patient, to insist upon the pre-operative irradiation as a means of minimizing cancer cell transplantation during operation.

In a number of benign conditions the new roentgenotherapy is producing most prompt and satisfying results. Especially is this true in hyperthyroidism in which it is not improbable that in time surgery will be restricted to the dysthyroidism. Uterine hemorrhages, both with and without fibroid tumors, when the diagnosis is not faulty, should, and usually do, respond with cure after one treatment, whereas it formerly required from three to five series of treatments scattered over a period of several months. Obstinate bone infections are showing gratifying results, including some cases of joint tuberculosis. Benign enlargement of glandular organs, especially the tonsil and the prostate should also yield satisfactory reduction in size; and our present observations fully justify such promise.

Several important points of technic should be noted in connection with the very high voltage treatments. It is exceedingly vital that the lethal cancer dose be administered at the first attack; and that it should be given within the shortest time possible

seems very probable. The length of the seances with the apparatus hitherto available interfered seriously with such a plan; for eight to nine hours were sometimes needed for each area (port of entry). Now, with our 280,000 volt apparatus, (much the most powerful ever made, and constructed for us by the General Electric Company) there are additional factors of increased quantity of current, permitting the treatment time to be greatly cut down. Thus the whole dose over two or four areas may be administered in a short period, assuring the patient the very best possible chance for arrest of his malady, and (we say it faintly, but hopefully) possible permanent cure. Each case should be carefully followed up with subsequent irradiation as may seem necessary, months later perhaps; though if the first attack fails, subsequent efforts are little likely to prove successful.

Another vital factor relating to the comfort and safety of this radical radiological procedure is the contemporary treatment of these patients by various means, mostly physiotherapeutic and dietary, by which it is possible to greatly reduce the discomfort sometimes attending the irradiation. These means and their application in connection with massive dose high voltage roentgen irradiation will be discussed in another paper.

DIAGNOSTIC CRITERIA IN EPIDEMIC ENCEPHALITIS AND ENCEPHALOMYELITIS —CONCLUSIONS

1.—On account of the toxic component and of the inflammatory infiltrative component of the disease process, both general and widely disseminate focal manifestations of involvement of the central and peripheral nervous systems may occur in encephalitis and give rise to the most diverse disturbances of motility, of sensation, of coordination, of the reflexes, and of the psyche.

2.—Despite the enormous number of clinical forms encountered in epidemic encephalitis, there is a marked tendency to the repetition of certain characteristic forms or types, of which the somnolent-ophthalmoplegic, the paralytic, the amyostatic, and the hyperkinetic are the commonest.

3.—When the disease is epidemic, it can usually, in outspoken cases at least, despite the clinical diversity, be easily recognized, though in abortive, imperfect, rudimentary and aberrant cases, great difficulties in diagnosis may be experienced and doubtless many cases remain entirely unrecognized.

4.—The occurrence in a patient of (a) pathologic drowsiness (lethargy), (b) cerebral nerve

paralysis (especially ophthalmoplegia), (c) an acutely developing parkinsonian syndrome, (d) a cataleptic or a catatonic state, (e) myoclonia, (f) chorea, (g) pupillary disturbances, (h) violent neuralgia, (i) a poliomyelitic syndrome, (j) a peculiar delirium, (k) a psychotic state, or (l) signs of meningeal irritation in times when encephalitis is epidemic, should make one think of the possible existence of the disease.

5.—Though epidemic encephalitis may simulate any one of a large number of neurologic and psychiatric syndromes of entirely different origin, the mode of onset, the course, and the results of carefully conducted neurologic and psychiatric examinations (including an examination of the cerebrospinal fluid), will usually yield the diagnostic criteria that suffice for its recognition and differentiation.—Arch. of Neur. and Psych. August 1921, Leyell's F. Barker.

THE SLANDERER

The very name invokes loathing. Though more or less in human form, this degenerate remnant of the silurian age is the most contemptible of creatures. The scandalmonger is disliked, the liar is despised, but the slanderer is loathed. Using falsehoods or facts that are distorted as some would juggle statistics, the slanderer spreads a most subtle poison, that blasts lives and reputations. Slander can not be controlled any more than you can stop a lie, once it has gained credence. Compared with the social diseases, it is the greatest evil of our age. The slanderer is more dangerous and despicable than those misguided enemies of society who use bombs and poison secretly.

Whenever you discover a slanderer posing as an honorable member of our profession, let your conscience be your guide, but be sure you do your full duty.—Malsbary, Editorial in the Southern California Practitioner.

THE PHYSICIAN'S CREED

From the Samaritan Hospital Bulletin, June, 1921.

I will devote ample time each day to rest, and at least a short time to the study of medicine.

I will uphold the dignity of my profession by courteous and ethical esteem of my brother practitioner.

I will avail myself of every laboratory method, if necessary to make a diagnosis.

I will advise early consultation, believing the best results can be obtained by such cooperation.

I will feel free to send my patient to a physician whom I believe to be more capable of treating the particular condition than I.

I will not impose upon my professional friends when in doubt.

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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 A. L. Seeley Mayville
 J. M. McClurg Bay City

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JANUARY, 1922

Editorials

ANNUAL MEETING OF THE COUNCIL

The regular semi-annual meeting of the Council will be held in Detroit for the transaction of the regular order of business and for such other business as may properly come before this body, on January 10th and 11th, 1922. The first session will convene at 7 P. M., January 10th. The second session will convene at 9 A. ., January 11th, 1922.

(Signed)
 W. J. DU BOIS, Chairman.
 F. C. WARNSHUIS, Secretary.

IN RE LORENZ*

The following communications are submitted for our readers' information:

November 26, 1921.

Dr. F. C. Warnshuis,
 Grand Rapids, Mich.

My dear Doctor Warnshuis:

What should be the attitude of a surgeon

asked to invite Dr. Adolph Lorenz to examine and probably treat patients at the surgeon's hospital

A prompt reply would be especially useful.

Very sincerely yours,
 —, M. D.

TELEGRAM

November 28, 1921.

Doctor:

Believe that Detroit profession should refuse to have anything to do with Lorenz. Recommend hospital facilities be not accorded him. Wayne County Society should register objection to his coming to Detroit. Best men in Philadelphia refuse to recognize him. Also file protest with hospital for joint disease New York where Lorenz is working. Suggest you see Dr. J. B. Kennedy. America for Americans.

F. C. WARNSHUIS.

LETTER

Dr. —, —,
 Detroit, Mich.

Dear Doctor:

I am naturally very much surprised and unable to perceive the precedent that inspired you to give out for newspaper publicity the personal opinion that I expressed to you in regard to Lorenz's visit to Detroit in response to your letter asking for that information.

Had I for a moment thought that you intended to use any communication of mine for such purpose, I would have certainly remained silent or if I had concluded to express an opinion, I would have formulated it in a manner so that it would have been more definite and more specific and void of any cause for misinterpretation.

I am inclosing herewith copy of letter I have just mailed to Dr. Welz of your city. It probably is only the forerunner of communications that will come to me during the course of this week, each of which will require a letter of explanation. Of course you know as well as I that when it comes to expressing the opinion or the sentiment of the profession as represented by our State Society, I have no authority to formulate such an opinion until I have been instructed to do so by the officers and the Council. I would not be so foolhardy as to advance an official statement in behalf of the profession without such instructions.

I regret exceedingly the incident and that you have thus unwittingly placed me in a somewhat embarrassing situation.

Yours very truly,
 F. C. WARNSHUIS.

*Note: Omitted names will be supplied on request—Editor.

LETTER

December 5, 1921.

Dr. F. C. Warnshuis,
Grand Rapids, Mich.
My dear Doctor Warnshuis:

I regret very much the appearance in the public press of what may have been information from your kind telegram sent personally from you to me. I was requested by the mayor's office to inform their office as to the way our profession felt and gave them the information only with the understanding that it was in confidence.

If you are in need of more ammunition, I would refer you to Dr. John Porter, 7 West Madison St., Chicago, who I understand was invited by Dr. Lorenz to assist him in his work in Chicago and who declined in no uncertain terms. In fact, I have a copy of his reply to Dr. Lorenz, but do not feel at liberty without his consent to quote from it. It is not unlikely that Dr. Porter might give you this information, and other information which I have received from him. From several other sources I have opinions which would seem to me to indicate the need of caution in unthinking acceptance of this popular idol.

Thanking you very much for your courageous assistance and desiring to have you consider me always at your service.

Sincerely yours,

TELEGRAM

December 6, 1921.

Dr. F. C. Warnshuis,
Grand Rapids, Mich.

Our letters must have crossed in addition let me say that your telegram with several other letters was presented to the Wayne County Medical Society Committee of Ethics. They recommended these letters be confidentially shown to the mayor with the hope that Lorenz' visit might be prevented. Your telegram was used only in this way and I was as much surprised as you to see parts of it in the public press. Will gladly state this over my signature to Dr. Welz or any other. I exceedingly regret what seems like carelessness on my part.

LETTER

December 4, 1921.

Dr. F. C. Warnshuis,
Grand Rapids, Mich.
Dear Sir:

According to this morning's News you have suggested that the hospitals of Detroit close their doors to Prof. Lorenz and have intimated that the medical profession should shun him.

I will inform you that all hospitals of Detroit are free agents; they govern their activities and do not need advice from outside the city to run them properly. Also two hospitals of Detroit have

already invited Prof. Lorenz to do his work in their respective buildings.

By your action as Secretary of the Michigan State Medical Society you have made the medical profession appear to be narrow, selfish, petty and jealous. As a member of the State Medical Society I know that you have no right or authority to presume to dictate to the members of the medical profession in Detroit in this matter.

I therefore ask you to make public apology to Michigan State Medical Society for having made use of your position as Secretary of the Michigan State Society to dictate to the Medical Profession of Detroit without authority. I remain

Respectfully yours,

WALTER E. WELZ, M. D., F. A. C. S.

LETTER

December 5, 1921.

Dr. W. E. Welz,
608 Mt. Elliott Ave.,
Detroit, Michigan.

My Dear Doctor Welz:

I desire to acknowledge receipt of your letter of December 4th and regret exceedingly that before you undertook to write as you did that you did not ascertain true facts.

Please be advised that Doctor ——— of your city in a personal communication invited me to express my personal opinion to him in regard to the invitation that had been extended to one Dr. Lorenz to come to Detroit. I did so in a personal capacity. By what precedent Doctor ——— gave to the public press my personal opinion advanced for his own personal information, I do not know. I must refer you to Doctor ——— for that information.

I am entitled to my personal opinion and also have the right and privilege to give it to another individual through personal channels. If you refer to the message and to the newspaper clippings that I have seen and to subsequent comment, you will learn that that opinion was not expressed in an official capacity as Secretary of the State Medical Society and cannot be construed as an expression of the medical profession of Michigan.

Had I known Doctor ——— would have used that personal communication for public information, I would have expressed myself more explicitly and more definitely in regard to the situation.

In view of the above, I cannot help but think that you were somewhat hasty in formulating an accusation. I am not so foolhardy as to assume to express the opinion of the profession for publication until those in authority of our state organization authorize such expression.

In view of the above, I think you will agree with me that your letter was unwarranted.

Respectfully yours,

F. C. WARNSHUIS.

STATEMENT OF THE MAYOR OF DETROIT
(From Grand Rapids Paper)

"The Mayor directed some caustic comment, especially to Doctor Warnshuis in regard to his personal opinion expressed to a Detroit surgeon and stated that he had never heard of such a narrow, mean, or jealous attitude."

ACTUAL CIRCUMSTANCES

There are on file personal communications from Dr. Lorenz, stating that he was

coming to America to recoupe his financial losses.

That he has done nothing to circumvent or discourage the type of publicity that he has been receiving. That he has condoned that type of publicity that is repulsive to our profession and not in accord with our principles.

The clinics that Dr. Lorenz has been conducting in New York have not been in the large Orthopedic Clinics in New York, as his publicity has sought to convey. He has been holding his clinics in a small (97 beds) privately owned hospital, known as the Hospital for Joint Diseases. That hospital is registered as a privately owned institution owned and conducted by a physician whose nationality, integrity and professional ability is unknown to us.

Dr. Lorenz was invited to come to Detroit by the Mayor of that city.

As far as the New York profession is concerned and the Clinics in New York in such hospitals as Bellevue, Roosevelt, Presbyterian, Mt. Sinai, Flower, and similar recognized representative hospitals, they do not know officially or recognize officially that Dr. Lorenz is in New York. They quietly ignore his presence and have made no movement to place their institutions at his disposal for clinical purposes.

Dr. Lorenz, in interviews, states that he is in America because of the assistance given to starving Austrian children.

Before leaving Vienna, Dr. Lorenz addressed the Vienna American Medical Association in regard to his proposed American visit. We have read a typewritten copy of that address sent to this country for publication. We extract the following paragraph: "For this purpose I will go to America in the middle of November and give them my time, my labor and my thoughts without any reward."

How sincere that expression was may be judged from the following report of a personal interview given by Dr. Lorenz and reported in a New York paper: "The receipts of a single day were never as much as \$3,000. * * * Anton Wedl has charge of the finances." Then who is Anton Wedl? He is president of "Anton Wedl, Inc., Importers." In an interview Anton states: "That he and another New York business man had brought Dr. Lorenz to America to conduct Hospital Clinics."

Much might be said upon the subject. It is the first time that we know of a member of the medical or surgical profession appearing in America to 'pay a debt of gratitude' under the management of an import-

ing concern and New York business man. No further comment is called for as the average individual knows that a different precedent exists when scientific or humanitarian purposes are the basic motives for American visits.

COMMENTS (NOT OPINIONS)

The Chicago Medical Society has openly set forth its reasons as to why the hospitals of Chicago would not be open to Dr. Lorenz. We do not believe that it is necessary to repeat those reasons.

Leading physicians in Philadelphia expressed their opinions in the Philadelphia papers and stated that Lorenz would not be accorded a welcome or given recognition, did he come to Philadelphia.

Those who were in a position to witness Dr. Lorenz' work during his former visit to this country have expressed their disgust and have stated that the results that were obtained were in no way equal to what was being routinely accomplished by American Orthopedic Surgeons.

The development and results of British and American Orthopedic Surgeons record the accomplishment of that specialty and are recognized as the superiors in that line of professional work.

The application of these orthopedic principles and methods and the results obtained are not the outcome of one special operation or manipulation. Results are obtained deformities are corrected and functional results ensue only after a series of several operative sittings and manipulative measures extending over periods ranging from several months to several years. A clinic of a few days or weeks is not going to accomplish spontaneous cures, nor can Dr. Lorenz hope to transfer to assistants that skill which he alleges or rather infers he possesses and which newspaper editors state he alone can apply and secure cures where American surgeons fail.

The raising of false hopes in the minds of parents or individuals afflicted with orthopedic deformities is ever a condemnable procedure.

PERTINENT INCIDENTS

A short time ago we read of a refusal of the Mayor of Detroit to accept an invitation to Chicago because of the attitude assumed by the Mayor of Chicago during the war. The Mayor of Detroit recommended that Chicago rid itself of such an executive. We now have the Mayor of Detroit inviting an enemy in war to Detroit and sponsoring his appearance under circumstances that are also objectionable. When disapproval

is expressed he resorts to the narrow, selfish, mean, jealous, accusation to justify his position and acts. Consistency is a jewel!

In Detroit there are many homes that mourn the loss of sons who made the Supreme Sacrifice and which sacrifice was occasioned by Austrian acts as well as those of the Huns. Dr. Lorenz is an Austrian. Can the Mayor of Detroit forget so soon, the loss of these, his constituents? They were men who would have undoubtedly given much to community welfare of Detroit, had their lives not been lost in the war. In the face of such sacrifice the mayor is eager to aid and make easy the replenishment of an enemy's depleted finances.

Had it not been for the war, the Supreme Sacrifice of Doctor Victor C. Vaughan, Jr. would not have been made. Had it not been for the war Doctor Vaughan would be, undoubtedly, serving in his professional capacity the people of Detroit and by his recognized skill and ability would have contributed to the health and longevity of the citizens of Detroit and of Michigan and would have done more for their physical welfare and health than a dozen Doctor Lorenz's could do. Still we find the Mayor of Detroit eager to forget the loss of Doctor Vaughan and exceedingly keen to replenish the depleted finances of one who was a party in causing the death of Dr. Vaughan.

Our memory will not speedily let us forget a spectacle that we witnessed shortly after the Armistice was signed. We shall never forget those certain Marines and Doughboys, who had been wounded in battle, taken prisoners and confined in German and Austrian prison camps. These men were returned to us through Switzerland, then Italy and to an American Base Hospital. Weak, wasted, pale American heroes suffering from the neglect of treatment in Austrian camps, with vermin in their wounds, with every evidence of surgical neglect, with uncorrected deformities that would not have occurred had simple splints been applied. The bitterness that spectacle created is not readily forgotten. If this Austrian's heart is so filled with humanitarianism and kindness, why was it not manifested in the care of our boys while they were wounded prisoners? In return for that treatment we should lend American institutions to replenish the depleted funds of one who had a definite responsibility in the care of our wounded men. If objecting to that type of recognition is narrow, mean, jealous, etc., God grant that we may continue to be so.

We have definite information that German and Austrian people are being urged by those in authority to resort to every device and appeal to secure all the money they can secure from American relatives or acquaintances. Is Dr. Lorenz complying with that propaganda in his present visit?

The so-called Lorenz method of reduction of congenital dislocation of the hips emanates from the clinic of an Italian surgeon to whom credit belongs for the method employed.

An editorial in the New York Times states: "It seems to be a fact that the so-called 'free clinics' were not free. Something was out of adjustment in the manner of organizing his visit. His assistant physician turned out to be an impostor and was dismissed."

Dr. Richard Cabot in a Boston paper interview expresses in no unmistakable terms his opinion of Dr. Lorenz and uses one very emphatic word in the disapproval he expresses.

Laws are enacted for guidance, not adornment. Why should an enemy be permitted to continue not complying with those laws when loyal American citizens are prosecuted upon their earliest violation? Were you to without license do likewise, how soon would you be called to account? Austrian enemies are seemingly protected in the violation of such laws by political aspirants.

The following is taken from the New York Times:

"Dr. John Joseph Nutt, surgeon-in-chief of the New York State Hospital for Crippled and Deformed Children, and former vice president of the American Orthopedic Association, said he thoroughly agreed with the statement of the Chicago orthopedic surgeons condemning Dr. Lorenz. Dr. Nutt added that he believed most other orthopedic surgeons in New York—especially those who belonged to the American Orthopedic Associations—shared his views regarding the Viennese specialist.

"I had an opportunity to observe Dr. Lorenz at first hand on Friday afternoon," said Dr. Plotz. "One of my patients is Morton Gerber, of 2366 Davison Avenue, the Bronx, the 7-year-old son of a wholesale carpet merchant. The boy has been crippled from infantile paralysis for five years, and his mother wanted to take him to Dr. Lorenz to see if he could do anything.

REGULAR CLINICS TOO CROWDED

"She intended to take the boy to the regular clinic, but on arrival at the Hospital for Deformities and Joint Diseases and seeing the crowd standing in line out in the rain she saw it was hopeless. On telephoning to the hospital she was told she could see Dr. Lorenz by appointment in the office of Dr. Henry W. Frauenthal, the surgeon-in-chief there.

"We went there Friday afternoon and there was still a long line waiting patiently out in front to be seen by Lorenz. In Dr. Frauenthal's office we

found thirty or forty people, all waiting to see Lorenz by appointment for \$100.00. I saw several of them pay the money to Dr. Frauenthal's office nurse and secretary and was present when Mrs. Cerber handed over her \$100.00.

"Then we were ushered into a little room, where Dr. Lorenz and his secretary, Dr. Galland, saw us. While his secretary took notes, Dr. Lorenz made a brief examination of the boy, lasting not more than a minute, and merely said that it was not a case for him. Then we were hurried out by another door, while a new patient was rushed in.

"Outside, we found ourselves in the midst of a group of mothers and children who had similar experiences. They were complaining bitterly that they had been duped and asking why they had to pay \$100.00 to find out that Dr. Lorenz could do nothing for them. Dr. Frauenthal finally came over to the group of dissatisfied persons, and attempted to calm them. They left the hospital still protesting.

\$3,000.00 PAID IN TWO HOURS

"From what I could see, about \$3,000 must have been taken in during about two hours on Friday afternoon. I think it should be thoroughly understood by the public that Dr. Lorenz sees only a few children at the free clinic, and operates on only a few there. Anybody who is able to scrape up \$100 is able to see him in Dr. Frauenthal's office by appointment, while other poor unfortunates wait for four or five days in all kinds of weather without seeing him.

"It should also be known that the \$100 fee is paid before the patient is admitted to the presence of Dr. Lorenz and that the money is accepted without regard to whether the case is one that Dr. Lorenz can treat. There should be someone to examine the patient first to see whether it is a case for Dr. Lorenz or not.

"The fee itself is altogether out of reason. For a mere examination \$5 or \$10 at the most is the customary fee among New York orthopedic surgeons."

Joseph Acito of 2236 Lorillard Place, the Bronx, a jeweler, who took his 10-year-old daughter, Clara, to see Dr. Lorenz last week, also told of his experiences with the Austrian surgeon.

"My daughter has been suffering from spastic paralysis since her birth," said Acito, "and has been under treatment of various doctors. I took her to Dr. Finkelstein, an assistant of Dr. Lorenz, at his office at 123 West 86th Street, one day last week and paid him \$15. He gave me a letter to the superintendent of the Hospital for Deformities and Joint Diseases, and I took Clara there. After paying a registration fee of \$10 we saw Dr. Lorenz, who examined Clara briefly and made a diagnosis of spastic paralysis. We already know that."

Dr. Nutt was interviewed by a reporter for the New York Times in his office in the Wyoming Building, Fifty-fifth Street and Seventh Avenue.

"The statement made by the Chicago Orthopedic Surgeons was most admirable," said Dr. Nutt. "Very few of the New York hospitals having orthopedic surgeons in attendance have invited Dr. Lorenz to attend their clinics. He has not been invited to my hospital, the New York State Hospital for Crippled and Deformed Children. To my knowledge, he has not been invited to attend and he has not attended clinics at the Hospital for the Ruptured and Crippled, of which Dr. Virgil P. Gibney is surgeon-in-chief; the New York Orthopedic, of which Dr. Russell A. Hibbs is

surgeon-in-chief; St. Luke's Hospital, where T. Halsted Myers is in charge of orthopedic surgery; Mount Sinai Hospital, of which P. William Nathan is chief orthopedic surgeon, or other hospitals having orthopedic surgeons in attendance.

NOTHING NEW TO OFFER, HE SAYS

"The failure of the leading New York orthopedic surgeons to entertain Dr. Lorenz and to invite him to attend the clinics at their hospitals is in striking contrast to the enthusiastic reception he received on his first visit to this country many years ago. I took part in entertaining him at that time. Entirely aside from his personality, my scientific reason for not inviting him to my clinic this time is that I do not think he has anything new to offer of therapeutic value. Moreover, the results of his former visit do not warrant the extension of an invitation to operate again in our clinics.

"I think the Chicago surgeons expressed the situation extremely well in the following paragraph of their statement: 'As a matter of fact, all those who came in contact, after he left, with the many cases which Professor Lorenz operated upon during his former visit, saw many results they were glad they were not responsible for and for which they felt Professor Lorenz would have been heartily ashamed could he have stayed in this country to take care of them.'

"It should be remembered that in orthopedic cases it is sometimes three years before the operating surgeon can determine whether his operation has been a success or not. The after treatment actually overshadows the operation itself. The operating surgeon, therefore, should continue to attend the patient after the operation. Instead of doing so Dr. Lorenz went back to Europe. Of course, many of the poor results of his former visit might have been avoided had the operator attended to the after treatment himself.

SAYS STATEMENT SHOULD CLEAR AIR

"In connection with the Chicago statement, it is interesting to note that one of the surgeons who signed it was Dr. John Ridlon, former president of the American Orthopedic Association, who was closer to Dr. Lorenz during his former visit to America than any other American surgeon, and was associated with him in the treatment of Lolita Armour. Dr. Ridlon probably knows more about Dr. Lorenz than any other man in America.

The statement of Chicago surgeons should serve an excellent purpose by clearing the air and counteracting some of the propaganda that has been circulated. Lorenz, as any other orthopedic surgeon, is well aware that no cure or even improvement can be obtained in such cases without prolonged treatment. I think it is very regrettable that people, especially poor people, should have been led to believe that this surgeon would be able to improve their condition if he would only examine them or perform some operation.

"It is a pity that poor people should be induced to spend money when we know it will do no good, and it is too bad to raise the hopes of cripples that they can be cured by some miracle when we know only too well that these hopes can never be realized. Furthermore, I am convinced that Dr. Lorenz is over here for mercenary reasons, not solely because he feels that he could do more for our crippled children than could be done without his coming over."

The following telegram is taken from the Detroit News:

"I think on the whole that Dr. Lorenz is a very good man and understands his particular work exceedingly well. His visit to this country should be very beneficial, as it will create an interest in this kind of work. While his operation on my daughter was not wholly successful I do not think that is was his fault. If there is any further information I can give you, please let me know."

J. OGDEN ARMOUR.

We are informed that X-rays taken several years subsequent to the time Dr. Lorenz attended Lolita Armour reveal an atrophy of the head of the right femur and not in contact with the acetabulum. The head of the left femur is anterior to the acetabulum and not reduced.

The following communications are from Dr. John R. Porter of Chicago, treasurer of the American Orthopedic Society:

November 29, 1921.

Dr. ———,
Detroit, Mich.

My Dear Doctor:

Replying to yours of November 28th, would say that I have just refused to admit Professor Lorenz to my clinic and so has every orthopedic surgeon in Chicago, so far as I know, and, not only that, but all the larger hospitals in the city have refused to permit him to operate there.

I enclose carbon copies of my reply to Dr. Lorenz' letter asking me to give him my assistance. I also include a copy of an argument prepared for the Tribune, which is self-explanatory. This has not appeared in print, but probably will within a few days, along with a lot more arguments of similar type prepared by representatives of the different medical and surgical societies here in Chicago.

If I were a member of a public or semi-public hospital where he was invited to give a show against my protest, I should immediately resign. We convinced the president of our Board of County Commissioners yesterday, that it would be a very unwise thing to invite him to appear there against the protest of the hospital staff. So far, the only place where he has secured an entree in this city is at a small private hospital, owned and operated by some Austrian physicians, friends of his, here in Chicago.

I learned last night by telephone that Dr. Stern has invited him to stop in Cleveland, and has offered him all the facilities possible. I am somewhat surprised, as I had not exactly included Stern in Albee's class.

Yours very truly,

JOHN L. PORTER.

Vienna, Oct. 23, 1921.

From Prof. Adolf Lorenz,
Wien I. Rathhaus St., 2i.

Dear Dr. Porter:

By some friends I have been invited to New York, where I shall arrive after the middle of November to stay there about one month. It is also my intention to visit Chicago, where I shall have to look out for some kind friends.

Remembering many kindnesses from you when I was in Chicago nineteen years ago I venture to ask you whether you would still be willing to lend me your help and assistance during my intended stay in Chicago? I hope that my orthopedic colleagues in the States will not me atone for the world war; it is quite enough that I was totally ruined by the same.

On the contrary I hope that an old and nevertheless hard working professional man, as I am, may expect some kindness from his special colleagues! Dr. Charles Beck, a dear friend of mine, advised me to apply to you for help and assistance. I hope to be in Chicago in January, 1922, and stay there at least one month. A letter from you will be welcome and will reach me care of Prof. Albee's Clinic, Post-Graduate Medical School, New York. Remembering beautiful old bygone times I remain with kindest regards,

Yours truly,

PROF. ADOLF LORENZ.

Dr. Porter's reply:

Chicago, November 25, 1921.

Professor Adolf Lorenz,
Care Professor Albee's Clinic,
Post-Graduate Medical School,
New York City.

My dear Professor Lorenz:

Your letter of October 23rd last, from Vienna, is at hand. In reply, I can only say that your proposed visit to the United States does not interest me in any way.

I doubt if you will find any of the profession in America, who have any regard for their professional standing, or any true Americanism in their souls, who will offer you any professional assistance.

Yours very truly,

JOHN L. PORTER.

New York, Dec. 1, 1921.

Dear Dr. Porter:

Your "Porter letter" of November 25th, in which you state "that you are not interested in the proposed visit to the United States of Professor Lorenz and that you doubted whether any of the profession in America, who have any regard for their pro-

fessional standing or any true American in their souls, will offer him any professional assistance," has come to hand.

I HAVE BROUGHT PROFESSOR LORENZ OVER TO THIS COUNTRY AND AS HIS CONFIDENTIAL ADVISOR I HAVE COME TO THE CONCLUSION NOT TO SHOW YOUR LETTER TO GOOD OLD PROFESSOR LORENZ.

Doctors are generally supposed to be men of high education, refinement, and tact, but after repeated perusal of your communication, I fail to find any of these qualities expressed therein.

You seem to have overlooked entirely the fact that Professor Lorenz has shown to the medical profession new ways of healing hitherto incurable cases of hip and joint diseases and that his name will be known long after all "Porters" have gone down to oblivion.

In conclusion let me say that even though people of your kind may not be glad of Prof. Lorenz's visit to the United States you can be sure that the mothers and relatives of the poor cripples certainly are.

Therefore, I have your letter before me and very soon behind me.

Yours truly,
ANTON WEDL.

Dear Dr. Porter:

I am giving you a copy of a telegram to Dr. Lorenz—an invitation given him by the Association for the Crippled and Disabled of Cleveland, Ohio (which I believe to be a lay organization). Also a copy of his reply:

"Prof. Lorenz: The Association for the Crippled and Disabled of Cleveland, Ohio, invites you to be the guest of the organization if it is possible for you to come to Cleveland and I will undertake to arrange any clinics desired by you through its Committee composed of the orthopedic surgeons here.

ALPHA ROBBINS.

Answer:

"Telegram received. Not yet decided about coming to Cleveland. However you can work on plans tentatively. HAVE BEST MEN OF THE PROFESSION ARRANGE FOR PRIVATE PATIENTS IF I DO COME."

I also received a telegram from Dr. Stern, Cleveland, saying that he thoroughly disapproved of Lorenz' campaign and will not invite him to come to Cleveland.

E. W. R.

Chicago Tribune, Friday, Dec. 16, 1921.

Dr. Adolf Lorenz will not be permitted to hold a clinic in the Cook County Hospital. This was decided last night by the medical staff of the institution, consisting of more

than seventy physicians and surgeons. The action appears to eliminate all chances of a clinic being conducted here by the Viennese surgeon, for his requests have been turned down by practically all of the leading hospitals.

The recommendation of the medical men is in the form of a resolution unanimously adopted stating that they do not believe in the "sensational exploitation" of Dr. Lorenz; that they do not wish to "delude thousands of cripples who would come to be cured and only deluded," and that, while there is no personal animosity in their action, they believe a visit by Dr. Lorenz would do more harm than good.

To the Chicago Tribune:

Your inquiry as to the reason why the larger and better hospitals of Chicago have refused to open their doors to Professor Lorenz of Vienna, in order that he may hold his clinics when he comes here, and why, not only the Orthopedic Staff of Cook County, but many other of the medical profession as well, are opposed to his being invited to operate at the Cook County Hospital, offers the opportunity to explain to the public through the Chicago Tribune certain facts, which we feel, under the circumstances, should be known.

In the first places, the American Medical profession looks with strong disfavor upon newspaper advertising of medical men, especially notoriety of the loose sensational type with which Lorenz is being heralded, which sensationalism is, not only lacking in scientific dignity, but also smacks of the methods of the charlatan.

Secondly such publicity inevitably will arouse a response amounting to a hysteria, which will bring unfortunate cripples of all sorts, many incurable, that careful deliberate examination of their ills will be physically impossible, and treatment, operative or otherwise, necessarily will be so hurried because of the numbers to be served that the best results cannot possibly be obtained, and bitter disappointment will come to many hopeful sufferers, led to expect the impossible.

The proposed visit of Dr. Lorenz will accomplish more harm than good and we are opposed to any plan by which countless numbers of cripples will have their hopes raised to the skies, only to have them blasted when they find they have been misled. His visit will serve to make every cripple in America dissatisfied and disappointed; some would be disappointed because they were unable to reach the "miracle man," others because he would not be able to treat them. There would be a very large class of those who would believe that he could have cured them if he had treated them. others would soon learn that promises are not cures. These disappointments are the worst a cripple must endure. Their greatest loss would be the loss of hope.

The public does not realize that the first operation or the first treatment in a deformity case, is only the beginning of a long series of treatments, which may last over several months or years, and few surgeons are willing to take upon themselves the responsibility and trouble involved, in giving the post-operative care, including plaster casts, dressings, braces, massage, etc., etc., which are necessary in cases which have been operated upon

by someone else. Furthermore, every surgeon is legally liable for his results—in fact, the hospital at which he operates also has a certain responsibility for accidental or bad results, and it is very easy to see that where the operator sees and operates upon such a large number of cases as Professor Lorenz did when he was here nineteen years ago, and shortly disappears to a foreign country, there must be some indifferently good results, as well as some actually bad ones, for which the hospital and surgeon giving the after-treatment will be held responsible in the minds of the patients, while the original operator, who is really responsible, cannot be reached.

As a matter of fact, all those who come in contact, after he left, with the many cases which Professor Lorenz operated upon, during his former visit, saw many results they were glad they were not responsible for, and for which they felt that Professor Lorenz would have been heartily ashamed, could he have stayed in this country to take care of them.

It must be apparent to everyone that to invite him to appear at the Cook County Hospital, or any other public hospital, where a well-trained and devoted Orthopedic Staff is giving its time and attention to taking care of the poor cripples of Cook County, is nothing short of injustice to the members of the staff, because the public at once jumps to the conclusion, which has been heralded far and wide by the sensational newspapers that he is a "miracle worker," and is able to do things which our local surgeons are unable to do, when we all know that such is not the case. Those of us who have visited Professor Lorenz' clinic in Vienna, as well as other European clinics, and have seen the surgeons at work in their own work shops, realize fully that the results obtained by the American surgeons are, to say the least, equally as good as those of the continental surgeons.

It is highly probable that if Lorenz can "put over" this visit, it will not be very long before we can expect the same sort of visit by representatives of other branches of medicine, such as, an internist, a surgeon, a gynecologist, an obstetrician, etc.

Therefore, we the undersigned, specializing in Orthopedic Surgery, wish to advise the public that we shall emphatically protest against undertaking the care or after-treatment of Dr. Lorenz' patients:

WALLACE LANCHARD.	CHAS. A. PARKER.
JOHN RIDLON.	HENRY B. THOMAS.
JOHN L. PORTER.	ROBT. O. RITTER.
EDWIN N. RYERSON.	PHILIP LEWIN.
FREDERICK C. TIST.	BEVERIDGE H. MOORE.
CHAS. M. JACOBS.	E. J. BURKHEISER.

LEADING EDITORIAL FROM THE BOSTON MEDICAL AND SURGICAL JOURNAL OF DEC. 8, 1921.

THE VISITING CONFRERE

Adolph Lorenz, of Vienna, is an orthopedic surgeon nearly 70 years old, who was in his time a distinguished contributor to the progress of surgery in formulating an operation for the reduction of congenital dislocation of the hip without incision. Summoned to this country some eighteen years ago, to operate on a well known patient, he was taken up by the leading members of the medical profession, shown every honor, given every facility to demonstrate his methods, and called into consultation in much lucrative private practice. He taught much to the profession in using his method in reducing hips, he showed that insufficient force had been used, and he left the country

with a medical profession feeling grateful for his instruction, although perhaps deprecating his desire for and methods of obtaining newspaper publicity.

But much water runs under the bridge in eighteen years. This method of reducing hips has been so largely modified here and in Europe in favor of using gentler and more dexterous manipulation that one would hardly recognize the original operation. IN AN ANALYSIS OF THE CASES OPERATED ON BY HIM IN AMERICA, RIDLON, A SURGEON IN CHICAGO, STATED THAT OUT OF TWENTY-SIX DISLOCATED HIPs OPERATED ON BY HIM, ONLY TWO HAD BEEN SUCCESSFULLY REDUCED. The advocacy of so-called "bloodless" methods in other deformities and joint disease has, moreover, not gained ground as it has been recognized that with modern surgical technic, better functional results are often obtained by division of resisting structures than by rough tearing of the soft parts.

The medical profession is therefore asking in many quarters what Lorenz has today to teach the profession, to offer to the patient that is of such great value, and why he is here. If we may believe our best information, the condition of the Austrian children is deplorable, and they are in urgent need of orthopedic treatment. If, when our influenza epidemic in Boston was at its height, one of our prominent physicians had gone to Chicago where there were a few cases at the time, and announced in the papers that he had gone there because he loved Chicago so much, the public of Chicago might properly have wondered why he had come. A disagreeable answer to a similar question with regard to Lorenz is suggested by a paragraph in a New York paper, where one of the surgeons, apparently in charge of Lorenz' publicity department, stated that no charge would be made to patients for professional service, but that each patient might leave what compensation he could afford, which was the custom in Vienna.

Any criticism of Lorenz by the American medical profession would be interpreted by the laity as inspired by jealousy. The medical profession is perhaps no more immune to that sentiment than any other, but in this instance the laity may be well assured that Lorenz, neither by reputation nor by achievement, is in a position to actuate that sentiment in a profession that has passed him by in the march of progress.

Orthopedic authorities inform us that the so-called bloodless reduction method is applicable in less than 40 per cent of hip joint dislocations.

"Several of the trustees today demanded an explanation from Dr. Henry Frauenthal, surgeon-in-chief of the hospital, for the state of affairs disclosed in complaints that poor people taking their children to the supposedly free clinic had been asked to pay fees.

"It is alleged that those who could get together \$100 were examined by Dr. Lorenz privately in Dr. Frauenthal's outside office at 160 West 59th Street, while those without money stood fruitlessly outside the clinic in all kinds of weather."

"Dr. Walter Galland, secretary and medical advisor to Dr. Lorenz, denied today that

fees were compulsory at the clinic, as has been charged.

"'People are not obliged to pay \$10, as has been written in the papers,' he said. 'Everything is a matter of voluntary contributions. Those who can afford to pay something may do so and those who cannot afford to pay are not asked to pay. In fact, there are many where not a cent is paid.

"'All the money collected,' Dr. Galland went on to explain, 'is turned over to Anton Wedl, of 118 East Sixteenth Street, Manhattan, A LACE IMPORTER WHO WAS INSTRUMENTAL IN EFFECTING DR. LORENZ'S VISIT TO THIS COUNTRY.'"

—Brooklyn News.

FALSE HOPES

The publicity given to Dr Lorenz creates the impression that he is a miracle worker. In the smaller localities of the state, there are many deformed children. Take one such case in a wayside up state home. The ambitions, hopes, and interests of the parents are centered in that child. They ponder seriously over his future. Now they read and gain the impression that if Dr. Lorenz could see their boy, his deformity would be corrected and he would be as other boys. They naturally will go to the extreme and will make every sacrifice to raise the funds to take that boy to Detroit. What will be their disappointment, mental anguish, and feeling when they learn that they have been misled and the expected cure cannot be wrought? What will their sentiment and attitude be to the profession who condones and endorses Dr. Lorenz's visit and methods? Will they return to their own home doctor or hospital with continued faith and confidence? Will they not be rightly bitter to the entire profession? It is right to thus deceive the people of Michigan? Shall a Mecca be held up to them and then, after personal sacrifices, have them learn that the Mecca was but a mirage? All to replenish the depleted finances of Dr. Lorenz!

Chapter X of our by-laws states:

"When prompt speech and action are imperative, authority to speak and act is vested in the Council."

Newspapers reported that the Executive Committee of the State Medical Society had invited Dr. Lorenz to come to Michigan. Dr. DuBois, Chairman of the Council immediately sent the following telegram:

Dr. Adolf Lorenz,
New York City.

As chairman of the Council of the Michigan State Medical Society, representing the medical profession of Michigan, I advise

you that this Society does not extend you an invitation to come to Michigan. Any invitation purporting to come from this Society is unauthorized and not official.

W. J. DUBOIS, M. D.

We add no further comment. We express no opinions individual or organizational. These must be attained by each individual. This editorial is concerned only with the imparting of informative facts. We took particular pains to ascertain their sources and reliability.

In the forming of an opinion the following should be guiding factors:

1. Orthopedic surgery rarely achieves its recognized results in one operative or manipulative procedure.

2. Dr. Lorenz has nothing new to demonstrate to American Orthopedists. His results do not equal that of American Orthopedists.

3. American Orthopedic Clinics are recognized for their high standards and end results.

4. The administration of our American Orthopedic Clinics are above criticism. They are ever open to the poor and crippled. Services without fee are always available to those in need.

5. Dr. Lorenz is in America with the avowed object of replenishing his depleted finances. Therefore his charitable principles have been submerged in his quest for gold.

6. The methods employed by Dr. Lorenz are objectionable not only from the standpoint of ethics, but also because an impression is given that misleads and deceives the public.

7. To cause false hopes in the minds of cripples or their parents, and to cause them to incur financial and personal sacrifices, only to be deceived and misled is not in accord with the standards of an honored profession.

8. It is the duty of the profession to reveal to the public the facts concerning those whose integrity is in question.

9. Individual members have no right to seek personal benefits by condoning and abetting questionable procedures and methods.

10. Bars of standards and principles cannot be lowered by the lever of gold.

11. American people should not be in-advisedly placed at the disposal of one seeking to replenish his financial losses, nor should they be permitted to be made the dupe of foreigners without due warning.

12. Dr. Lorenz has not demonstrated

that he has anything new to offer in Orthopedic surgery.

13. The becoming of a protege of civilian lace importers, is not the customary avenue along which a foreign scientific professional man approaches or secures entree to the American professions. Neither is it customary to employ a lace importer as one's financial agent when humanitarian purposes without desire for financial reward is the true motive of an American visit.

14. The profession has no jealous or personal motives. It never has failed to welcome and afford every facility to recognized foreign medical men. It does not lend its endorsement, however, to those who come with apparent ulterior motives.

Note: The above is published upon instruction of the Chairman of the Committee on Publication and Chairman of the Council.

POLITICAL THREATS

These are days of political, business and social unrest. That is what is being told to us from almost every quarter. The sentiment seems to prevail in every line of human endeavor. For each avenue of activity there are individualized bug-a-boos. In the medical profession they consist of Chiropractic menaces, State Medicine, Public Controlled Clinics, etc., etc. We concede that they are problems that demand solution. We concede that they merit intensive thinking and action. We do not concede that they are going to engulf the profession. Neither do we concede that we are at the mercy of the politician or the political party in power. We are not going to discuss at this time the basic problems or conditions. We are reserving that for a future discourse. We do, however, desire in this editorial to comment upon the phobia of politicians and legislative enactments. Under the agitation of some there appears to be an increasing concern as to what the politician may do to us and many there are who immediately throw up their hands and give up the ghost whenever any intimation of political interference is mentioned. Let us consider briefly whether the politician, be he governor, mayor, legislator or boss, is supreme in his dictatorship and whether we poor mortals are wholly subservient to his dominancy.

The defeat of political dominancy, coercion and intolerance, can be brought about in a manner that is simple in execution, but exacting for its effectiveness, ex-

tended, co-operative and uniform application. It consists of acquainting the public with facts, the interviewing of candidates for office, and the placing before those in office the basis upon which our representations are made, with the added information that we hold in reserve the support of a given number of voters who will give expression to their opinions if the reception of our representations is tainted by political chicanery. Easy, isn't it, if we are inspired by noble motives and interested in the welfare of our fellowman? Difficult, however, if you are willing to let the other fellow do all the work for you.

The last legislature listened when a flood of telegrams poured in upon them. They will listen again, but we must not permit ourselves to be shoved so near to the edge of the precipice before we wake up to our position. A telegram will not always suffice to turn the tide. We require a stronger reserve. Now is the time to build up that reserve and you, doctor, are called upon to aid. Are you willing to respond? If not, do not sob if you find yourself put upon a state payroll and work for so many cents per call or per hour.

Let us forget the threats, "The Governor is going to do this," "The legislature is going to pass that law," "The cults are going to demand this." Why man, the very reason why a Governor is going to do what he threatens or the legislature is going to pass a certain law is because some other party or group of citizens have employed the machinery and are stiffening their nerve and they are responsive. They will never intimidate or threaten when they perceive that honest demands, backed by honest people concerned with the good of the people and without quest for personal gain, come out in open array and submit their claims. To do so would be suicide for them and their political career. If the cults get anywhere it is because they effectively employed the method advocated. We are of equal influence, we are capable of exhibiting stronger support, we are motivated by higher ideals and we are pressing facts home that have no ulterior motives in the background. This cannot be said of the cults and if the facts were laid before the public, the expression of the sentiment that would be registered would give no room for doubt as to what the Governor or the legislature would and will do. It is up to you, doctor, to mold that sentiment, amass that public support by imparting the facts that the people should know. Do not let the opposition, so called, round up a few hundred

people to their support and so create a false appearance of public demand when you can, if you will work, round up thousands upon thousands whose expressions of approval will soon put a quietus upon any threats of Governors or legislature. Your part of the work can be done as you make your daily rounds. The task is not overly arduous. In place of sobbing and quaking get busy, right in your own community. If you are ready the Committee on Civic and Industrial Relationship and our Legislative Committee will outline the plan that will be statewide in its uniformity.

Let us forget the Governor for the time being. Let us forget the Boss Politician. Let us forget the legislature until it convenes. They will all listen and be eager to have us recognize them in these matters if we start now to educate the people and demonstrate to them what will be their dividends if the principles that we uphold for their welfare are accorded their support and endorsement. Think it over, doctor, but do more than think—work. Do not expect anything unless you work. Stop being the politician's weak-kneed vassal. Crack the whip a few times yourself and he will like you. You have got to exercise the old soup bone, however, if you wish to develop the muscle that will make the whip crack, and that means personal effort. Bring up the subject at your next county meeting and start training now.

STATE MEDICINE

In requesting the editor of the State Journal to place the Dr. Hugh Cabot-Indiana State Medical Journal controversy before its readers, the Committee on Civic and Industrial Relations are pursuing the course laid down by its members, when they first took up their work some three years ago. The Committee decided that members of the medical fraternity were of age—that it was their right to demand of their officers and committees the fullest information on any subject and on any measure, which might affect their well being—that once the facts were placed before the physician, it was his duty to consider them carefully and then govern his actions accordingly.

With that in view, this Committee, without one dollar of expense to the State or County Societies, placed before the medical fraternity the question of Compulsory Health Insurance. The Committee showed the rank and file that, while admitting that an overwhelming majority of the members of the medical profession were opposed to

Compulsory Health Insurance, the leaders of the American Medical Association, whom the rank and file had elected to safeguard their interests, were working hand in glove with the American Association for Labor Legislation, the author of the Bills being introduced in various states and the power which was fighting to force their adoption. This Committee also showed that these officials of the A. M. A., not satisfied with aiding and abetting the enemy, had employed the high priest of the Health Insurance Cult, Dr. I. N. Rubinow, to spread the infamous gospel, and the irony of the appointment is shown, when it is known that the funds of the overwhelming majority who were opposed to the scheme were paid to Dr. Rubinow for his work. This Committee has not been able to learn just how much was paid Dr. Rubinow, but the fact that he was paid anything is comment enough. And even the great A. M. A. Journal was dragged into the plan to socialize medicine, and to fight the great majority of its subscribers. It did the bidding of the handful, knowing that the great majority of the rank and file, the men who made it possible, were opposed to Compulsory Health Insurance.

These statements are simply statements of fact. They are made with no personal animus. As individuals, this committee has the highest respect for the gentlemen criticised, but as leaders, it can but point to their own spoken words which condemn them as no word from this committee could. In 1916, when every one was on the ragged edge, not knowing what minute this country might become embroiled in the world war, when physicians were so interested in outside matters that they had utterly forgotten to look after their own welfare, the American Association for Labor Legislation, staged a Compulsory Health Insurance love feast at Cincinnati in December. The shavings lights at this tenth annual meeting were Dr. Alexander Lambert of New York, member of the Council on Health and Public Instruction of the A. M. A., Dr. Frederick R. Green, salaried secretary of the same council, and Dr. Frank Billings of Chicago, Resident Trustee of the A. M. A. That no injustice may be done these leaders of the A. M. A., we quote verbatim from a stenographic report published in the Reports of the Tenth Annual Meeting of the American Association for Labor Legislation, Dec. 1916.

Said Dr. Billings: "I am UNEQUIVOCALLY in favor of Compulsory Insurance and the protection of maternity. That, I

think, must be the attitude of any one who studies the question of illness in its relation to economic conditions. I am in favor of them, too, because our present method of managing the sick poor is about as bad as it can be. To my mind, Health Insurance is going to be one of the best measures of preventative medicine. Such results will not be achieved except by some measure of State supervision, and I know of no State supervision which will equal State Compulsory Insurance. I would like to have Dr. Lambert describe a little better the provisions for an INQUISITORIAL body over all health insurance work. You know and I know that we do not do our work well unless there is some incentive, something to make us do it properly and so I think that in this bill there must be something of that kind." So much for Dr. Billings, Resident Trustee of the A. M. A.

Said Dr. Frederick R. Green (salaried secretary of the Council on Health and Public Instruction, who expressed the opinion to Committee in 1919 that an overwhelming majority of the Medical Profession were against Compulsory Health Insurance, but that if a bill were introduced in Michigan, we should not openly oppose it but rather get a commission appointed to make a survey. This Committee thought this queer advice at the time but in the light of the 1916 speech of Dr. Green, it shows that it was but one angle of the attempt to get Compulsory Health Insurance adopted by some state.)

"I would like to say just a word, not in defense or in apology for, but rather in explanation of the statement that nine out of ten physicians the country over would today, with their present knowledge of the subject, be opposed to Health Insurance. That is because physicians, as a class, are not given to considering abstract social propositions of this sort, and also because this proposed plan of social insurance radically alters the relation of the medical profession to the public. The relation of the physician to the patient has always been an individual one, and the basis of compensation has been payment for individual calls on individual patients. Under Health Insurance, this would be changed into the relation of a collective medical profession towards the public as a collective patient, and the great majority of physicians do not understand this change. While it is probably true that a large per cent of the profession would today vote against the proposition, I do not believe that there is a single member of the medical profession who has given it

careful and at all exhaustive study, who is against it. Through the Journal of the American Medical Association, through the Social Insurance Committee of that association, of which Dr. Lambert is the chairman, which was appointed to study this question, we are endeavoring to get the essential facts and educate physicians as rapidly as possible. It would be most unfortunate in any State to have a bill introduced and to have it, on account of some details or lack of understanding, opposed by physicians, for that would put them in the position of opposing what others feel is a much needed social reform. So all we ask at present is to give us time to educate physicians."

This from Dr. Green, whose salary was being paid by the great majority who were opposed to Compulsory Health Insurance, in 1916 and, if the reader will compare it with the advice given this Committee on Civic and Industrial Relations in 1919, he will have something to think about.

In 1919, this Committee placed the story of Compulsory Health Insurance before the physicians of Michigan and the result was that while Dr. F. R. Green, was telling the Chairman of this Committee that Compulsory Health Insurance would not come up in the House of Delegates at the New Orleans meeting because the Council wanted more time for study, Michigan delegates had joined hands with Indiana, Illinois and New York and were preparing a resolution which would bring a vote in the House of Delegates. The revolutionists carried the day, and by an almost unanimous vote Compulsory Health Insurance was voted down by the representatives of the rank and file, after five years of intensive education by Dr. Lambert, and Dr. Green of the Council on Health and Public Instruction in its favor.

That is what the leaders of the American Medical Association have done to the rank and file of the Medical profession and out of their own mouths has come the evidence.

With the downfall of Compulsory Health Insurance, the leaders with one accord commenced to condemn Compulsory Health Insurance and to introduce varied brands of State Medicine. Our own Dr. V. C. Vaughan, Sr., introduced his particular brand at the Kalamazoo symposium, where young Dr. Apfelbach of Chicago, one of the debaters, took issue with him. Our leaders had become so accustomed to having what they said taken by the rank and file as the law and gospel that Dr. Vaughn was astonished at the temerity of the young physician who dared criticize what Dr. Vaughn

thought best for the medical fraternity. Dr. Vaughn's substitute for the Health Insurance was a Community Hospital to be built at every cross roads and to be the connecting link between city and farm life. Keep the boys and girls on the farm by the establishment of a community hospital was the refrain. Later the new Dean, Dr. Hugh Cabot, of the Medical School of Michigan University, who had succeeded Dr. Vaughn, came to Detroit and offered as his substitute Community Hospitals, subsidized by the state, manned by the staff of the University and under its direct control. Dr. Cabot very frankly said that the standards of the hospital would be very high and that possibly the local men might find themselves debarred from practice in the hospital, but standards would be kept up at any cost to the individual practitioner. Then Dr. Frank Billings took up the refrain in Chicago and again he was quite sure that he had found the cure for all medical ills. Strange to say, he echoed the call of his University brother, Dr. Cabot, in calling for State Subsidized Community Health Centers. The names varied but in every case the State was to pay and the physician was to be a hired man. "Compulsory Health Insurance" had been killed in New Orleans—but its twin sister "State Medicine" was very much in evidence and again the rank and file were being "educated."

At Boston in 1920, Dr. Billings was a candidate for re-election as resident trustee, the most important place in A. M. A. affairs. Opposed to him, were the veterans of New Orleans who had laid Health Insurance to rest. A copy of the speech made by Dr. Billings in 1916, before quoted, was circulated among the delegates. Dr. Billings asked for the privilege of the floor, and he made a speech in which he told of what he had done for the medical profession—of the many things he had tried to do. He announced that now he was opposed to Compulsory Health Insurance and State Medicine. But he absolutely forgot to tell anything about the 1916 speech in which he announced that he was unequivocally in favor of Compulsory Health Insurance and so must every thinking man be who studied the subject. He forgot to explain why, when he knew that an overwhelming majority of his constituents, the men who had elected him to represent them, he, their chosen leader, had abandoned them and joined hands with the enemy. And this committee have failed to hear of that point's being cleared up by Dr. Billings yet. At the close of the speech, there was presented the first

piece of machine work ever shown outside of a political caucus which has been arranged. The practical politician of medicine, the salaried Health official, was right on the firing line. From the south, Dr. Health Officer, with a voice quivering with tears, resented the insult to a beloved leader—from the east came fiery denunciation of men who dared question the acts of one of the anointed—from the west, sarcastic references to the character of men who would dare oppose a man of the candidate's fortune and medical reputation. The plan was well conceived and beautifully executed. But to the onlooker, it was ludicrous to see men who outside, were avowing their allegiance to "State Medicine," because it meant bread and butter to them, calling on delegates to vote for a candidate who was going sled lengths in repudiating Compulsory Health Insurance and State Medicine. This Public Health Service machine dominated Boston. It refused to permit a common sense definition of "State Medicine" being adopted and it ruled to haul those guilty of lese majesty in circulating the Dr. Billings unequivocal approval speech before the bar of the house and censure them. Could obsequiousness go further? Dr. Billings now is preaching the gospel that Socialized Medicine is dead and the battle scarred veterans in the war against State Medicine would rejoice, were it not for those queer schemes for Community Health Centers paid for by the state and by the state is meant any unit of the state, county, township, village or city.

Whether you call it "Community Hospital" or "Community Health Center" or "Community Hospital under University domination," the principle is the same "State Medicine" and write that large, lest ye forget and find yourself in another five-year educational campaign of the Council of Health and Public Instruction.

Call on your delegates to work to have a plain, common sense definition of State Medicine adopted by the Delegates of the A. M. A. meeting in St. Louis. Warn your delegates of the dangers of alliance with salaried health service officials. Bid them reject all the airy persiflage of professional educators and the camouflage of leaders who have not kept the faith and then you will not see a great medical association made the football of players like Dr. Alexander Lambert, Dr. Frank Billings, Dr. Frederick R. Green, Dr. Victor C. Vaughn, Sr. and Dr. Hugh Cabot. You will not see men you have placed in your highest offices representing the American Associa-

tion for Labor Legislation instead of the medical fraternity—you will not see men whose salaries you are paying, daring to tell in open meeting how they do not want the medical profession to oppose a scheme which others think is for the welfare of the people. Who are the others? The Sage Foundation? The various group of socialists? Who? It may be lese majesty to ask the question but this is the day of dead and dying Caesars; of dethroned kinglets; of the passing of dynasties built on the egotism and ambition of individuals.

GEORGE E. FROTHINGHAM,

Chairman Committee on Civic and Industrial Relations.

STATE MEDICINE

Dr. F. C. Warnshuis,

Editor Michigan State Medical Journal,
Grand Rapids, Michigan:

Dear Doctor: It has been the policy of the Committee on Civic and Industrial Relations to place before the members of the State Society such matters as concerned their welfare as practitioners of medicine. To that end, Compulsory Health Insurance was discussed at length and so much interest aroused in the subject that at New Orleans, Michigan delegates took a leading part in defeating the measure.

Today "State Medicine" threatens the well-being of the physician. It is put forward under many forms and under various names, but the basic principle of every scheme is the socialization of medicine and the reduction of the individual practitioner to that of a poorly paid servant of the state. In order to keep our members in touch with the current discussions, this Committee respectfully request that you print the enclosed editorial from the Indiana State Medical Journal and that you also copy Dr. Cabot's reply thereto and the rejoinder of the editor of the Indiana Journal printed in the November number of which you have a copy. Since the question under discussion is the policy of the Medical Department of the Michigan University we feel that the articles will be of particular interest to the members of our State Society. We trust that you will place the discussion before us all at the earliest opportunity.

Very truly yours,

GEORGE E. FROTHINGHAM,

Chairman Committee Civic and Industrial Relations.

DR. HUGH CABOT'S MEDICAL SOCIALISTIC SCHEMES FOR MICHIGAN

If anyone thinks that we are borrowing trouble when we talk about the possibilities of State Medicine and the evils resulting therefrom, let him digest the statement made by Dr. Hugh Cabot, the new dean of the Medical Department of the University of Michigan, who is quoted in the daily papers as having said, "The limitations of the services of the University Hospital to the indigent people of the state, to my mind, is undemocratic. The hospital should be open to rich and poor alike."

We all know that the hospitals of the University of Michigan have been pauperizing the community, not only in Michigan, but in sections of Indiana and Ohio, by furnishing gratuitous medical and surgical treatment to all who applied whether able to pay for such services or not. Even if the authorities of the University of Michigan considered that the taxpayers of Michigan were entitled to gratuitous medical and surgical services because of the taxes paid to support the institution it is inconsistent to consider that people residing outside of Michigan who pay no taxes to the support of the institution, should be accorded like privileges. However, the system is wholly wrong and in the end is bound to end disastrously. There is no reason why the rich or well-to-do people of Michigan should not pay for their medical and surgical services just as well as to pay for their plumbing or for any other services rendered them. If the state is going to furnish gratuitous medical and surgical services to the rich, then why not furnish them other necessities, or, for that matter, with automobiles or other luxuries enjoyed by the rich. We notice that most of the advocates of this pernicious form of State Medicine are safely entrenched in a soft berth for themselves, and Dr. Hugh Cabot, perhaps not being really obliged to practice medicine as a vocation, is very fortunate in being at the head of a great university which pays him a salary that amply provides a comfortable living for him, but what about the struggling doctors, perhaps graduates of the Medical Department of the University of Michigan, who are depending upon the public for support, but who must compete with their alma mater, and, worst of all, an alma mater that donates its services to rich and poor alike? The time and money expended in securing a medical education means nothing and brings nothing unless its possessors can fall into a

soft berth provided by federal, state or municipal support.

However, aside from all this discussion of the economic phase of the situation as it affects doctors, there is a far more important matter for consideration and that is the one of the limitations of individual effort. It is quite possible that a few men occupying soft berths may continue to progress, but for the vast majority there is little initiative, and in the main patients are going to fall into the hoppers of institutions that treat them in a rather impersonal and machine-like way, oftentimes with mediocre services. Aside from this there will be the ever-present political phase of the scheme to be dealt with, and experience shows that those selected for federal, state and municipal positions are not always those who are best qualified, but those who, for one reason or another, are able to control the most influence.

We have no quarrel with those who see fit to furnish free medical and surgical attention to the worthy poor, for that practice is upheld by every member of the medical profession, but the scheme proposed by Dr. Hugh Cabot is unworthy of acceptance as being the best for the people of the state. For the medical profession it eventually will prove annihilation, as private practice, except in a few isolated instances, can not exist in the face of that sort of competition.

It strikes us that Michigan has been flirting with several socialistic features, and the Medical Department of the University of Michigan long has been a thorn in the flesh of the medical profession of the state through its tendency to socialize the practice of medicine. Now comes Dr. Hugh Cabot, resplendent with the glories of a reputation secured in the literary, aristocratic and aesthetic atmosphere of Harvard University, with revolutionary and bolshevik notions which, as dean of the Medical Department of the University of Michigan, he expects to thrust upon the people of Michigan, whether they want them or not. Perhaps a certain element among the people in Michigan will shout their approval, but what about the members of the medical profession whose throats are being cut in order to furnish greater reputation and power for men like Dr. Cabot? And what about the people who in the end will be the greatest sufferers from such an impracticable scheme? As we have said before, if we are going into this socialistic business, why not socialize everything, like they do in Russia, and get the agony of the experience over at once in order to get back to the sane

conduct of affairs at an earlier date? It is as fair to put all vocations under state control as it is to put the medical profession there.

This whole question of state medicine reminds us of what we have said before, and that is that the medical profession has more to fear from members in its own ranks, men who have been placed in high positions very largely through the efforts of their fellow professional men, who are really the worst offenders in advocating and supporting some of the wild, impractical and socialistic schemes which have as their ultimate end the annihilation of private medical practice. It is time to have an accounting and separate the sheep from the goats. We may have a very high regard for Dr. Hugh Cabot's ability, but we have only condemnation and censure for him in advocating such schemes as he proposes in Michigan, and the quicker the medical profession places its stamp of disapproval upon him when he continues to advocate such socialistic schemes as the one which forms the basis of this discussion, the better it will be for the medical profession in Michigan.

—Indiana Medical Journal, October, 1921.

Editor of the Journal of the Indiana State Medical Association,

406 West Berry St., Fort Wayne, Indiana.

My Dear Sir:

Your editorial in the number of October 15th has been brought to my attention. Your reading of a newspaper quotation in which I am alleged to have said certain things is so diametrically opposed to the facts that I make haste to write you on the matter. You have apparently concluded from the newspaper paragraph which I do not recognize, that I am at some time supposed to have advised the admission to the University Hospital of patients who could afford to pay. Now this is precisely the reverse of the position which I have always taken and now take in the matter. The only alteration which has been made in the admission of patients to the University Hospital since my coming here two years ago has been the ruling that patients who can afford to pay a fee shall always be required to do so. I am quite of your opinion that it is improper to use the money of the State for gratuitous service to people not entitled to it and this opinion I have long held and expect to continue to hold. If the University Hospital were to admit patients who could afford to pay, I should be wholly of your opinion. As it does not and as every precaution is taken to avoid this form of pauperism, it appears to me that the criticisms you level at me are not well taken.

My opinions in regard to State Medicine to which you also refer are quite the reverse of those with which you credit me. I have always been opposed to it and my published statements on the subject might readily be obtained. I would refer you to my paper entitled "Compulsory Health Insurance, State Medicine or What" delivered as the Annual Discourse before the Massachusetts Med-

ical Society, June 9, 1920, at the end of my first year as Professor of Surgery at Michigan. I enclose a copy of the paper in order that you may see that I was at that time violently opposed to State Medicine. I would also refer you to my address at the opening of the Medical School this year, which may be found in the November number of the Journal of the Michigan State Medical Society. From this, you will appreciate that my opinions have not altered in such a way as to become more favorable to State Medicine and I therefore think that in some way you must have been misinformed in regard to this.

I assume that you would not willingly do injustice to a colleague and therefore I assume that your willingness to condemn and censure me on opinions that I have never held and do not expect to hold is due to misunderstanding. I do not know that this is the proper place to refer to your strictures aimed at me concerning "soft berths," but without going into what may be regarded as a personal question, it is perhaps proper to point out that those looking for "soft berths" do not do so by accepting positions that cut their incomes more than in two. I do not make any claim to credit because I have seen fit to reduce my income by a large amount, but I do think that it entitled me to be free from the assumption that I am looking after my own comfort in doing so. Considering the rather severe way which you have written concerning me, I would ask that you give this at least as much publicity as you have given your editorial.

Yours very truly,
HUGH CABOT, Dean.

Hugh Cabot, M. D.,
Medical Department, University of Michigan,
Ann Arbor, Michigan.
My Dear Dr. Cabot:

Your letter of November 7, taking exception to an editorial in the October number of The Journal, has been received noted.

I have not the slightest intention nor desire to misrepresent or misquote you or anyone else, and I am just as much in favor of those things which make for medical progress as you are. Perusal of numerous newspaper clippings covering some of your speeches, and talks with various Michigan medical men who thought they rightly interpreted your attitude, have led me to believe that your favor various schemes which many of us believe not to be to the best interest of the public or the medical profession at large. From conversations with medical men in other states it would seem that I am not the only one holding such opinion. You may have been misrepresented, and perhaps the unfavorable opinion is based upon a wrong interpretation of what you have said and what you have been doing.

You are now the head of a great medical school that, I do not think you will deny, has been guilty—certainly until very recently—of a very loose method of determining who is entitled to gratuitous services at the hands of its Hospital Staff. While I do not think that the pecuniary phase of the question, so far as it affects medical men not connected with your institution, should be overlooked wholly, yet there are broader considerations which justify me in believing that the practice carried on by your Hospital and its Staff, in the final analysis, is detrimental to the public as well as to the medical profession. Knowing that this practice exists, are medical men not justified in interpreting the statement of the Dean of this institution as indicating that the practice

is to continue when you say, as you were reported in the Detroit Free Press, and which I notice you do not deny, that "rich and poor should be treated alike?" This statement is reported as having been made by you in connection with a discussion of the subject of admission of patients to the University Hospital.

I had not the pleasure of seeing your paper published in the Boston Medical and Surgical Journal until I received a reprint of it from you, and today I have received the November number of The Journal of the Michigan State Medical Society, containing your address delivered at the very recent opening of your Medical School. In the latter you acknowledge that there has been misapprehension in the minds of the physicians concerning the attitude of the faculty of your institution, and this necessarily must indicate that there has been occasion for much misapprehension.

Neither you nor any member of the faculty can justly deny that the Medical Department of the University of Michigan has done more to pauperize the community by granting gratuitous medical and surgical treatment to the well-to-do than any one institution or factor in the Middle West. In fact the action has been so flagrant that it has been a common remark among Michigan doctors, as well as doctors in some contiguous states, that it is exceedingly difficult to secure even a very ordinary fee from many well-to-do people for the reason that those people claim that they can go to Ann Arbor and have their work done or nothing, with the hospital charges as their only expense. Furthermore, such practice on the part of your University helps to make it impossible to secure decent remuneration from the rich industrial organizations or insurance companies for any medical or surgical services rendered, and I do not think that anyone will admit that those organizations should be an object of charity at the hands of the medical profession or even the State.

So far as I know, not a single person has objected to the admission of well-to-do or very wealthy patients to the University Hospital or the Medical School clinics, providing they pay respectable fees for the services but objection is raised to giving these patients gratuitous services, or services at a very nominal fee. The practice followed by your institution is wrong in principle, and in the end is bound to end disastrously. In the discussion of this matter we may overlook the unfair competition of the University, with its injurious effects upon the private practitioner.

Primarily, your University Hospital was established as a teaching hospital, and as such it not only fills a great need but has received a sufficient number of patients for teaching purposes and has furnished skilled gratuitous services to many deserving poor. If for any reason you fear that there will be a dearth of material it seems to me that it would be possible to secure all the cases necessary, and even more than your institution can care for, by appealing directly to the medical men of Michigan to send you one or two cases each throughout the year as you already have suggested in an indirect way. It should be understood that these cases come from the deserving poor, and if others are referred to the University Hospital such cases will be required to pay fees consistent with ability to pay.

Now that you say so, over your own signature, I am willing to believe that you are opposed to the very practices that have made the Michigan University the subject of bitter criticism, and it is

unfortunate that you, in your choice of words, have had your real attitude misinterpreted. Knowing what the Hospital of the University of Michigan has been doing, and then have you openly say that "rich and poor should be treated alike" when they enter the University Hospital makes it appear that you are sanctioning a continuance of the policy that heretofore has existed. It appears that what you wanted to say is that so far as being admitted to the Hospital is concerned, anyone can be admitted, but all are not treated alike so far as paying for the services is concerned. If the Hospital of your institution now is charging well-to-do patients fees consistent with their financial circumstances, which seems to be a recent innovation, then that fact should be made known to the medical profession to the end that the justifiable criticism formerly aimed at the Hospital shall cease and deserved co-operation be given you and your confreres on the Staff.

Concerning my reference to the "soft berth," perhaps that is taken in a manner not intended. I knew that you gave up a private practice that netted you more money than you will get out of your present position, though I think you will agree that being the head of a great University, with a fixed salary that enables one to live more than comfortably, is in the minds of many sufficient to counter-balance any loss sustained in giving up private practice. But what about the poor though competent doctor who doesn't have such a position and has his income from private unnecessarily and unfairly reduced in consequence of the competition of the University which brings about this discussion?

The term "State Medicine" has been applied rather loosely, but I think it generally is conceded now that by State Medicine is meant providing medical and surgical attention by the State to all who desire it, and this in the end means wiping out private practice wholly, or at least to a very large extent. Your scheme for furnishing "community medical and surgical service" by the members of the Staff of your institution and a selected few outsiders, if I understand it correctly, is a step in the direction of State Medicine in that it paves the way for the operation of a more comprehensive plan directly under the control of the State. Aside from this it starts out by creating a sort of caste in the medical profession, known to the public as such, which is bound to create dissensions and produce vicious results.

I am in favor of everything which tends to improve public health conditions and ameliorate the sufferings of the sick and disabled, but I am opposed to all practices, under whatever guise, that tend to pauperize the community, to stifle individual initiative in medical practice, and unjustly trample upon the rights and privileges of individual members of the medical profession. Hospitals, whether federal, state or municipal, should be open to people, irrespective of social position, but the medical and surgical services should be gratuitous only to the worthy poor, and charged for to all others consistent with their ability to pay. The record of your University Hospital, and your statements which you now say have been misconstrued, are not in keeping with the plan mentioned, and that is the reason for the criticism to which you take exception. The medical men of Michigan have certain inalienable rights, and one of them is the right to practice medicine without the unfair and unjust interference with their efforts to earn an honest livelihood. The University of Michigan has trampled upon this latter mentioned

right in not only a ruthless manner but in a manner which true economists believe to be detrimental to the public weal.

I believe that I am safe in saying that practically all of the visionary but impractical if not wholly vicious schemes which tend toward the socializing of medicine owe their origin to medical men, erstwhile leaders in the medical profession, rather than to any lay person or lay organization. It is the so-called leaders, like yourself, who start innovations, sometimes with good intentions, but more often with selfish ends of one kind or another in view. Not infrequently the innovations are not for the best interests of all concerned and at such times criticism and opposition is justified. I hope the day has arrived when every right thinking doctor in Michigan, through his voice as well as his vote, will register his opposition to the various schemes for socializing medicine, and that will mean offering vigorous protests to some of the plans that some of us believe you have sanctioned and supported.

Concerning this matter of criticizing the sponsors of detrimental innovations as they affect the medical profession, permit me to quote from a letter to me, commenting upon the editorial to which you take exception, as follows: "There is no position in America so high but that its occupant can be criticized for his words and actions. It has become the habit in America to consider the so-called leaders of the medical profession as immune from criticism by their professional brethren—let us change that habit!"

Very truly yours,

ALBERT E. BULSON, Jr.

Editor of the Journal of the Indiana
State Medical Association.

P. S.—In accordance with your request, your letter, together with this reply, will be given as much prominence in *The Journal* as was given the editorial to which exception is taken.

CHIRONEUROTIC

In a news item under the heading, "Chiros Freed by Groesbeck," published in the *Trois News*, November 23, it was stated that the chiros "were released on the understanding that they would not practice in Michigan until the Supreme Court had passed on their appeal from the directed verdict of Judge Glenn C. Gillespie, of the Oakland County Court, holding them guilty of violating the state law requiring chiropractors to pass the same examination that physicians do and to have a medical license."

The statement that the chiropractor is required under the state laws to pass the same medical examination that physicians do is absolutely untrue, but it is a common "error" to make such a statement by the chiro and his friends. Under the law governing medical practice in Michigan, a so-called "drugless practitioner" is required to possess a high school diploma, or its equivalent credential, and to pass an examination in fundamental subjects of a medical education involved in a sufficient knowledge

whereby diseases may be recognized. The subjects include anatomy, physiology, chemistry, bacteriology, pathology, diagnosis of disease, and hygiene. It is hardly possible to properly treat a certain disease under any system of treatment unless one is able to identify the particular disease to be cured or adjusted. From the standpoint of public safety a practitioner of any system of cure should be able to distinguish smallpox or diphtheria from an "anatomic disrelation" in the spine or elsewhere. The minimum educational requirement by Michigan for a physician is 100 per cent more preliminary education and several hundred per cent more strictly medical education and training than that required of "drugless practitioners." The latter are not required to attend a medical college or school of practice. In view of the above facts, how much truth is there in the statement that chiropractors are required to pass the same examinations that physicians do? And yet this is the usual method of statement by chiropractors in advocating their cause to the public.

There will be no appeal to the Supreme Court in the cases of the chiropractors released by Governor Groesbeck upon the condition that they appeal their cases. Judge Gillespie gave them every opportunity to appeal, but they did not do so because their attorneys knew that an appeal would be useless in view of the fact that the Supreme Court has already given a unanimous decision in an exactly similar case in 1915, and in which identical issues were passed upon. The question passed upon were the constitutionality of the "drugless" section of the act, its reasonableness, and if "chiropractic" constituted the practice of medicine under the medical act. All of the questions raised were answered affirmatively by every member of the court. This supreme court threat is pure and simple camouflage.

Another statement, "The Governor's order followed a personal appeal by the wife of McGilp, who declared the State Medical Law was unjust to chiropractors in that it compelled them to study medicine, although they did not practice it. Before 1913, chiropractors could obtain a license without passing a medical examination. Since 1913, when the law was amended, chiropractors have been refused license if they did not pass a medical examination." Prior to 1913, there was no provision in law whereby a chiropractor could obtain a license to practice his system in Michigan. The present law requires an extremely moderate knowl-

edge of diseases and their management in the case of chiropractors who wish to treat the sick and afflicted for pay and reward. The law requires them to show by an extremely fair examination this required knowledge rather than to take their word for it. Why should the chiropractors object to what everybody else who ministers to the sick and afflicted is only too glad to do, including the nurses—demonstrate their claims to competency.

The chiropractors and those in sympathy with them through want of a normal education invariably interpret "practice of medicine" as curing or relieving ailments and diseases through the prescribing and use of drugs and medicines. It has no such meaning. "Medicine" is derived from a Latin word meaning, to heal, to cure, to adjust. It has been so defined in all of the various medical and standard dictionaries; and by the statutes and courts as "the science or system of curing, healing, alleviating or preventing disease, physical disorders and injuries without reference to the means employed to accomplish that end. "Medicine," a double entendre word, in its generic sense as a science should be distinguished from the term "drug." A chiro in his attempted services to his patients who may have an anatomic disrelation—possibly once in ten thousand cases of ailment or disease—if he does not practice medicine, i. e. cure, relieve, restore or adjust, then, if successful, he probably admits the mind, and incidentally in connection therewith the patient's pocketbook. In this reference to neurotic remedies, attention is called to the late "Dr." Samuels, whose career was rudely and effectively cut short in Detroit several years ago by Prosecuting Attorney Hugh Shepherd. His place of business, then recently established in Detroit, was raided and his equipment, consisting of 60 brand new typewriters, one good and true water tap, one barrel each of sugar and salt, several thousand small bottles (the latter filled with water from the tap, to which was added a grain or two each of salt and sugar, and sold for \$25.00 a bottle), files containing 80,000 letters from as many grateful patients, testifying in extravagant terms that they had been cured (the better word would be adjusted) of diseases "given up by the regular doctors" was confiscated. As evidence of good faith, Samuels deposited in a Detroit bank \$5,000 dollars to be awarded to any person who could bring proof that a single testimonial of the 80,000 letters, as above, was obtained by fraud or by other

than legitimate methods. The above illustrates the value of so-called cures "given up by regular doctors." Just think of it, seriously, two or three drops of a weak solution of salt and water dropped in an eye, curing or adjusting 80,000 chronic diseases given up as incurable by the regular medical profession. The above illustrates the value of testimony by patients who have received a neurotic solution of salt and sugar or a neurotic thrust in the back by those highly qualified (over night) scientists—the chiros. We know positively through a Superior Court investigation and judgment, the facts of which have never been questioned, that chiropractic stripped of its suggestion, charlatanism, empiricism and quackery is purely a crude and unscientific manipulative treatment—a fraudulent system founded upon deception and neurotic testimony. It would be criminal to perpetrate such a monstrosity in the matter of legislation. The evidence of its having effected cures is not material in the light of the Samuel's case and thousands of like cases.

To illustrate the consistency and honesty of the chiropractors seeking to establish an independent board through legislative enactment. The main reason given by those chiropractors registered as "drugless practitioners" appearing before the health committees of the House and Senate is that the state does not actively and successfully prosecute those chiropractors practicing in the state without legal registration; that a chiropractic board could and would eliminate illegal practitioners. On the other hand, when the state arrests and prosecutes an unlicensed chiro those same registered practitioners, who appeared before the health committees are found giving aid and comfort in every possible manner to the accused. Again those unlicensed practitioners are all members in good standing of the State Chiropractic Society. In the language of "Tad," "Can you beat it?"

Another statement, "McGill and Currier were the first chiropractors to be imprisoned in the campaign of the Michigan Chiropractors' Association to test the constitutionality of the medical law and, if the Supreme Court upholds it, to force its amendment in the next legislature." As before stated, this threatened appeal to the Supreme Court is simply camouflage. The court in an unanimous opinion has already held that the clause in the 1913 Medical Act requiring "drugless practitioners" to demonstrate to the state that they possessed cer-

tain qualifications for license in the interest of public health was constitutional, but in addition, hold that the law requiring "drugless practitioners" to qualify for the right to practice in Michigan has been on the statutes books since 1883. The statement that an amendment will be forced in the next legislature means simply that after four unsuccessful attempts to obtain an amendment to the law in the past eight years, a further attempt will be made in 1922. Through a very unusual combination of political circumstances the chiro bill was passed by both House and Senate last session, but when the members of the Senate were informed of its vicious nature it was recalled and almost unanimously scrapped. The members of the House and Senate will not again have the excuse of ignorance of its viciousness when next introduced.

ANN ARBOR, MICHIGAN, THE BIRTHPLACE OF HOAXES*

Munsey's Magazine for August, 1903, speaking of famous American hoaxes, says that professors at Ann Arbor, Michigan, certified to the genuineness of P. T. Barnum's bogus white elephant.

Attesting to the genuineness of counterfeits evidently has become a habit with Ann Arbor professors. Dr. Hugh Cabot is the most recent recruit to the practice.

His is the lusty white elephant that has flopped himself down on the door steps of the medical fraternity. The name of this brute of Cabot's is the Socialization of Medicine. The elephant pretends to be sent direct from heaven with some of the millennium tied to his trunk.

Instead the Socialization of Medicine is merely another fake sent out by the University of Michigan. Dr. Hugh Cabot, dean of the medical department of this institution, has tied his official O. K. on the pachyderm, given the brute his blessing and speeded him on his way with much the same gusto as several decades ago other professors at this same university attested to the "genuineness" of the "white elephant" shown at that time by the late P. T. Barnum.

The peroxide put on the Barnum fake wore off before the fake or the bleach or any part of the hoax had done any damage to anybody. The trouble with the Cabot swindle is that of necessity its exposure will work the other way around. Only through the harm done to the profession, and in due sequence to the people, will the white-wash be scraped off the iniquities of the Socialization of Medicine. The rank and file of the profession should rub the dust out of its eyes and get a square look at things. It has been well said that the "apathy in the medical profession is pathetic." If it were not so, false leaders like Cabot and Lambert would not flourish nor would an institution like Johns Hopkins University come out flatly and make a rule out of the exception.

Daily papers all over the land quote Dr. Hugh Cabot as saying, "The limitation of the services of the University hospital to the indigent people of

*From the Illinois State Medical Journal, December, 1921.

the state to my mind is undemocratic. The hospital should be open to rich and poor alike."

On the surface that reads like a neat little altruistic statement—one of selfishness and ardor for the common weal. Scratch the backs of the majority of these fraternal comments from silk-plush bolshevists and you find them masking cheap sovietistic tenets. The majority of the leaders who make such comments are usually ensconced securely in some soft well-cushioned nest provided for them by the moneyed foundations upon which gold-lined bolshevism is built. It is from such centers that the partisanship for State Medicine receives its daily bread and milk.

It is very kind indeed of Dr. Cabot to love the population of the State of Michigan so well that he feels every man, woman and child therein should have gratuitous medical and surgical treatment without stopping to investigate whether the hospital applicant is a pauper or a plutocrat.

Indeed, hospitals of the University of Michigan have gone a long ways towards pauperizing the community in that state. Even some sections of Indiana and Ohio have been able to "get in on the graft."

It had been fine for the bolshevistic elements and for such moneyed men as Dr. Cabot, who could possibly exist without having to practice medicine as a vocation, or who wishing to do so are relieved from financial embarrassment either through a fat inheritance or the assets acquired through a wealthy marriage. Neither a fat inheritance nor a wife with a plump bank account, however, are the possessions of a great many skilled but comparatively penurious physicians and surgeons.

Indeed this description might apply to some of the doctors who are graduated from the University of Michigan—quite a number of whom pay taxes to the State of Michigan just as do the citizens who can go without expense to the University hospitals. These doctors are going to have a hard time of it to stay in Michigan, earn a living and compete with the hand that taught them all they know. The time, the money, the brains put into learning how to be a physician in the State of Michigan are going to be time and talents wasted unless the state has in waiting a sufficient number of padded jobs for its graduates—be these municipal, state or federal.

What is going to happen if this does maintain? It means that medicine in Michigan is going to be so subsidized by cheap politics that our children and our children's children to the fourth generation will reap the results of this monumental folly on the part of a profession blinded by indifference to its own best interests. Unfortunately, ability is not the ladder by which a man climbs to a government given job.

Free medical and surgical treatment for the worthy poor is dispensed without quibble by doctors all over the land. We all expect to do more or less of this, but Dr. Cabot's scheme is a sorry thing indeed. This Michigan plan is sufficiently radical to rejoice reddest Russia. Through its workings, hospitals maintained by the State of Michigan shall be thrown open without charge to residents of the commonwealth, rich or poor. Unfortunately, Dr. Cabot and his followers fall short of several lengths of facts in their attempts to tie up ideals with circumstances. They would do better to weigh the situation carefully in the balance rather than to content themselves with eye measure and its resultant optical delusions.

Do they realize that in order to furnish them-

selves with temporary near fame they are cutting the throats of their fellow practitioners?

Dr. Hugh Cabot is a man of high ability. Let him, however, refresh his memory with the white elephants that have paraded out of the State of Michigan, and especially from the university at Ann Arbor in the years gone by. The herd seems to be exhaustless. These snowy pachyderms keep on coming. Munsey's Magazine can help Dr. Cabot out. Let him look on page 734, vol. 29, of August number in 1903. He will find the comment there, "Barnum's White Elephant—a learned body of scientists at Ann Arbor pronounced his peroxide beast to be the genuine white elephant."

Even then "the handwriting on the wall." Yet Michigan refuses to be warned. Then it was Barnum's elephant. Last year it was Vaughan's. Today it is Cabot's. When will this certification of bogus white elephants cease at the U. of M.? For today the savants in that famous medical college located at Ann Arbor are patting on the back this intrusive white elephant known as the Socialization of Medicine.

Logicians continue to argue as to the relative responsibility of the "whole for the part." The privilege of making the "part responsible for the whole" Dr. Hugh Cabot arrogates to himself without scruple. Though he is dean at Ann Arbor he seems to have no hesitancy to put the entire institution on record as a backer for the socialization of medicine and the pauperizing of the profession. Dr. Cabot has an independent income as well as high ideals. He should remember that it is pretty hard to maintain high ideals on an empty stomach and figure out specifically just whether the poor, deluded fellow physicians of his state and the students at his college will be able to achieve medical miracles on a hollow belly. The proof of his figuring, of course, is due to be discovered at the expense of the health of a citizenry.

It would not matter if surface hoaxes were all that were involved. But this is a complex wherein must be considered the safety of the nation and the life of the profession upon which that very safety is built. Barnum's white elephant! The white elephants of the University of Michigan! The tail of Barnum's brute is swinging yet, brushing dust into the eyes of deluded individuals and kept wagging in the category of great American hoaxes. The tale of that elephant and what it did to the Ann Arbor savants will never be quiet.

If Dr. Cabot's plan for socializing medicine is all that he claims for it, and not a white elephant of the most vicious breed, why does he hitch his plan to medicine alone? Why doesn't he go ahead and try it out on a few other "dogs"? For instance, why not socialize the grocer, the butcher, the plumber, the cobbler, the cab companies and the street cars? Why not state barbers, state laundries and all the rest of it just as soviet Russia has? If we must go through this experience, let us do it all at once, get the agony over and have done with it. A purge and a lavage will surely get it all out of our systems and then we can start in anew. The doctor who is nagged by the ward boss, sardined into street cars, held up for repairs on his bathtub, paying quintupled prices for butter, eggs and sugar is, according to Cabot, mounted high on the peaks of his dreams and gives away rejoicing his own skill, the fruits of his years of study and his health to say nothing at all of the material welfare of his loved ones.

Dr. Cabot comes from Harvard University. That is a seat of untrammelled thought. But never, not

even in its days of playing cradle for the nation's education, never then, thank God, was Harvard University a center for bolshevistic propaganda, calculated to sift rank poison into the sacred memories of a Boston tea party.

The white elephant is a tropical product. Let us send this one member of the herd, "Socialization of Medicine," down into the deepest pit, where the heat should satisfy the frailest. There, too, perhaps the ruddy glow from the flames will make even the blanched hide of the hoaxes reflect the semblance of a blush of shame.

Beware the white elephant. Arctic days entail arctic colorings as protective ensembles for wild animals. In this midwinter season white elephants roam with impunity through the snow-covered scenery. To be colloquial, they get by with a lot. Thanks to the false leaders within the ranks of the medical profession, that Ann Arbor beast, tagged with the Cabot O. K., is running wild. Recall the traditions of the sacred white elephants of the Orient. These gratuitous Jonahs were sent in a spirit of vengeance from one jealous tribal monarch to another. The sacred pachyderms were immune from destruction. They ate their recipients out of house, home and harem. There was nothing to do but suffer. The false leaders, the godfathers of soviet white elephants that override the medical profession today, were placed in their high state by the very men whom now these white elephant sponsors would grind into the dust. What is the answer? Separate the "sheep from the goats." Take heed of the Scriptural adjuration, "He hath put down the mighty from their seats—he hath exalted the humble."

The medical profession today can do what the tribal monarchs of old could not. They can get rid of the white elephants.

And if the profession does not, the white elephants will get rid of the science of medicine as it is known today, and that speedily. Dr. Cabot is false to his trust as dean of the University of Michigan when he perpetrates such a hideous scheme as his proposed pauperizing of medicine in that state. This white elephant of his will work harm to the university; it will work harm to the commonwealth and to the people. Cabot should be put on the carpet by the trustees of the University of Michigan, he should be taken to task by the physicians of Michigan, aye, the physicians, rank and file, the country over. That white elephant of his, the Socialization of Medicine, through unrestricted, uncompensated hospitals, should be brought into the spotlight, the whitewash scraped off and the true blackness of his hide revealed. The sooner these things are accomplished the better it will be all around.

Editorial Comments

Yes, it is time to again remind you of the necessity of promptly paying your 1922 dues. Please do not make it necessary for your local secretary to dun you repeatedly for them. The state dues are \$5.00 and in addition there are the dues for the expenses of your local society. The annual reports of your state and county officers impart the channels through which the funds are disbursed and the bills they defray. Write your check now.

The article in this issue by Dr Case discussing what is being accomplished by deep X-ray therapy

in the treatment of malignant neoplasm is an extremely illuminating article. Do not miss reading it.

The story is told of a Michigan farmer who just as darkness was coming on observed one of his hired hands starting down the road carrying a lantern. He called out to the young man asking him where he was going and received the reply that he was going to see his girl. The farmer remarked regarding his carrying a lantern and stated that when he went acourting no light was desired, to which the young man replied: "Yes, and see what you got." We are handed packages at times simply because we did not observe the precaution of causing a bright light to shine upon the subject under consideration. The profession as a whole will find itself with a fine, undesired package upon its hands if it does not speedily turn a lantern light upon some of its activities and acts to observe how they really appear in the open. To a certain degree self must be lost sight of and the welfare of the whole organization be made paramount to all else.

Several attempts have been made to define just what comprised State Medicine. At the present time much confusion exists as to just what is implied by that term. Each individual construes the definition differently. We believe that at the St. Louis meeting of the A. M. A., the House of Delegates will give expression of approval to a definition that will not admit misconstruction. If you have any suggestions please send them to your delegates.

The Scientific Committee of the State Society will meet with the Genesee County Medical Society during the latter part of January for the purpose of arranging the scientific program for our 1922 annual meeting that is to be held in Flint. The date for the annual meeting will be determined at the mid-winter meeting of the Council.

The American College of Surgeons has in its eight years of existence brought about the institution of several important and pertinent standards and procedures. Indications point to some laxity in exercising disciplinary authority in regard to the question of division of fees. It sets forth that such individuals shall forfeit their right of fellowship. We have yet to see where that proviso has been enforced. In the reading of the editorials in medical journals there seems to be a growing sentiment for the rigid enforcement of that principle.

The question as to whether whiskey is of value and a necessary medicinal agent has received much pro and con discussion. Naturally there have been adherents on each side of the arguments advanced. No definite survey of the profession has been made to register what side is in the majority. During the past month the American Medical Association has prepared and sent out a questionnaire upon the subject with the object of securing the opinions of all doctors. As the returns are received they will be tabulated, thereby imparting the opinion of medical men. We await the returns with keen interest and will make them available to our readers as soon as they are given out. If you received a blank send it in. If you have mislaid the blank refer to the A. M. A. Journal of December 3rd and send in the blank that will be found on the editorial page. It

is exceedingly desirable that the returns shall be from a large majority of the profession.

It was but a few years ago when those who were most keenly interested in the tuberculosis problem were criticising very severely the failure of medical men to make early diagnosis of tuberculosis. Today we are hearing the repeated utterances of warning in regard to making unwarranted diagnosis of tuberculosis. The tendency seems to be to give every case the benefit of the doubt, call it tuberculosis and let it go at that. There is no doubt that the records of local boards of health and of the State Health office are cluttered with hundreds of cases that are called tuberculosis and represent unsupported diagnoses. The pendulum has swung back. We cannot help but feel that too often the study of the case is far too superficial, especially in border line cases hastily gone over in health clinics. Especially is this true in regard to children. In the light of recent development in nutritional studies in children poor physical condition is due more often to other conditions than to tuberculosis. More study is called for, more detailed physical examinations are indicated and repeated checking over of our findings must be done. It is greatly to be desired that a re-survey of the patients under treatment be undertaken.

To illustrate the consistency and honesty of the chiropractors seeking to establish an independent board through legislative enactment. The main reason given by those chiropractors registered as "drugless practitioners" appearing before the health committees of the house and senate is that the state does not actively and successfully prosecute those chiropractors practicing in the state without legal registration and that a chiropractic board could and would eliminate illegal practitioners. On the other hand, when the state arrests and prosecutes an unlicensed chiro those same registered practitioners, who appeared before the health committees are found giving aid and comfort in every possible manner to the accused. Again those unlicensed practitioners are all members in good standing of the State Chiropractic Society. In the language of Maurice Ketten, "can you beat it?"

Another statement, "McGill and Currier were the first chiropractors to be imprisoned in the campaign of the Michigan Chiropractors' Association to test the constitutionality of the medical law, and, if the Supreme Court upholds it, to force its amendment in the next legislature." As before stated this threatened appeal to the Supreme Court is simply camouflage. The court in an unanimous opinion has already held that the clause in the 1913 Medical Act requiring "drugless practitioners" to demonstrate to the state that they possessed certain qualifications for license in the interest of public health was constitutional, but in addition held that the law requiring "drugless practitioners" to qualify for the right to practice in Michigan has been on the statutes books since 1883. The statement that an amendment will be forced in the next legislature means simply that after four unsuccessful attempts to obtain an amendment to the law in the past eight years, a further attempt will be made in 1922. Through a very unusual combination of political circumstances the chiro bill was passed by both House and Senate last session but when the members of the Senate were informed of its vicious nature it was recalled and almost unanimously scrapped.

The members of the House and Senate will not again have the excuse of ignorance of its viciousness when next introduced.

The Menace of Chiropractic—

Chiropractic constitutes the greatest menace of the present day to preventive medicine and public welfare. It is built upon theories which have no basis in scientific fact. Through an organization (Universal Chiropractors' Association) the violation of law is openly advocated and a systematic propaganda is being carried on maligning the medical profession, and nation-wide efforts are being made to break down medical practice laws, by which those who do not have a thorough training in the fundamental sciences of medicine may secure the unlimited right to treat the sick. Without this propaganda chiropractic colleges could not be conducted as such highly profitable enterprises as the Palmer School of Chiropractic appears to be.

According to the latest published announcement of the Palmer School of Chiropractic, a common school education is all that is required for admission and the chiropractic course of instruction covers three terms of only six months each, which may be completed in a continuous session of 18 months. In a recent catalogue it is stated that if the student finds it impossible to remain for more than 12 months, the school will confer on him the degree of D. C. if he got an A grade on each and every paper submitted.

It has been claimed that there are 2,300 students in the Palmer School during the present session and that the fees charged range from \$300 to \$350 each. At this rate the institution has secured an income for the present year of approximately \$700,000. Surely chiropractic is a profitable business—for the chiropractic schools. To secure these enormous profits it was necessary for B. J. Palmer et al to conduct their campaign for breaking down medical practice laws, otherwise their graduates who are poorly educated and untrained in reliable methods of treating the sick could not secure the legal right to prey on a sick and suffering humanity. (Editorial, Federation Bulletin, November, 1921).

Deaths

WHEREAS, Death has removed from our midst our esteemed associate, Charles Beylard Guerard de Nancrede, A. B., M. A., M. D., L. L. D.; be it

RESOLVED, That in his death the Academy of Surgery of Detroit has lost a loyal and valuable member; and be it

RESOLVED, That we extend our deep sympathy to the members of his family. and be it further

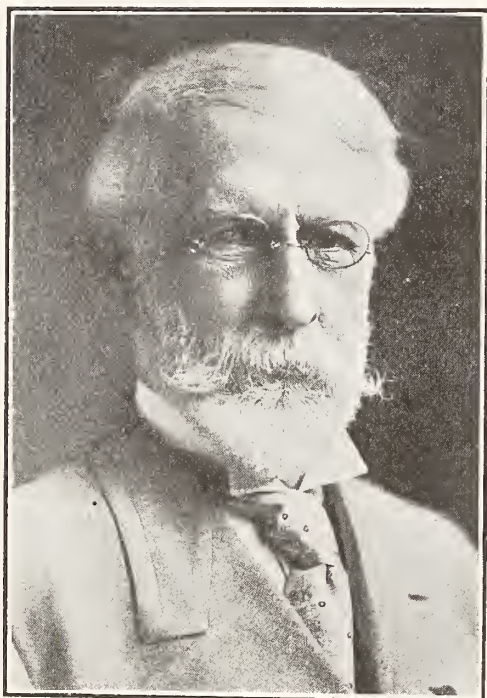
RESOLVED, That a copy of these resolutions be sent to the family of the deceased, and also be spread upon the records of this Society.

Charles Beylard Guerard de Nancrede, late professor of Surgery and Clinical Surgery, Director of the Surgical Clinics of the University of Michigan, Professor of Surgery and Clinical Surgery, Dartmouth Medical College, Professor Emeritus of General and Orthopedic Surgery, Philadelphia Polyclinic, Assistant Surgeon, First Lieutenant and Major Medical Reserve Corps of the United States Army, although not called to active duty in the recent world war, was born at Philadelphia, Pa., on December 20, 1847, son of Thomas Dixie Nan-

crede, wholesale importer, and Mary Elizabeth Nancrede, nee Bull. Died April 12, 1921, Ann Arbor, Michigan.

Dr. de Nancrede's grandfather, Paul Joseph Guerard de Nancrede, was born in Heriey, France and came to the United States as a lieutenant in the French Army serving under Rochambeau, and wounded at Yorktown. Later he immigrated, with his wife, to the United States in 1785 and became professor of French at Harvard, 1787-1797.

The early education of Dr. de Nancrede was in private classical schools and a military school here, being honored to the extent of being one of the cadets who fired the salute at Lincoln's funeral, later entering the Medical Department of the University of Pennsylvania where he was graduated with the degree of M. D. in 1869. Al-



DR. C. B. G. de NANCREDE

though primarily a medical man and devoted to his work, he had a fondness for art and music. His work in physiology, anatomy and even of the eye and ear service at the University of Pennsylvania helped to broaden his medical knowledge and surgical ability from the standpoint of diagnosis and treatment.

As a student, he devoted much time to research, and it is well known that he was one of the first in Philadelphia to operate for bullet wound of the stomach and intestine, and later for appendicitis, the first operation of this kind being done for the removal of the appendix in Philadelphia at the Episcopal Hospital where he was associated. He was also one of the earliest surgeons to devote time and study to diagnosis and treatment of brain abscess and cortical epilepsy, being in addition, the most persistent advocate of Listerism and with Doctors Keen and Mears, has been more than once credited before the Academy of Surgery, as chiefly responsible for establishing this practice in Philadelphia. He published numerous monographs and papers on anatomical,

pathological and surgical subjects, did research on the nature of the gastric juice of the dog, the effects of blood letting on inflammation, sterilization of catheters, rate of absorption of eatgut, etc.

Prior to accepting the chair of Surgery at the University of Michigan it is known that he was always solicitous to enlarge his experience in every branch of the healing art, and as we who knew him at Ann Arbor, remember his untiring interests in other branches of medicine, always impressing upon his students that he was not a surgeon, but a medical man who operated. His activities were not alone limited to Ann Arbor, and he held the chair of Surgery and Clinical Surgery at Dartmouth Medical College, 1900-1913, giving his course during the summer; he was vice president twice and once was president of the American Surgical Association; was Major and Chief Surgeon of Division, U. S. V., third division, second army corps during the war with Spain, being in the Santiago campaign in Cuba with the Fifth corps and recommended as Brevet-Lieut. Col. for services to the wounded under fire, July 1, 1898. He was also president of the Washtenaw County Medical Society; president of the Northern Tri-State Medical Society; corresponding member of the Royal Academy of Medicine of Rome, Italy; former member, recorder and editor of the Transactions of the Pathological Society of Philadelphia; member of and secretary of the Philadelphia County Medical Society; Pennsylvania State Medical Society; American Medical Association; American College of Surgeons; member of the International Society of Surgery and International Congress at Madrid, Spain, later member of the Philadelphia Academy of Natural Science.

Honorary degrees were conferred upon him by the University of Michigan, University of Pennsylvania and Jefferson Medical College.

As Professor of Surgery, Clinical Surgery and Director of the Surgical Clinics at the University of Michigan from 1889 to 1917, when he was made Professor Emeritus, one need not mention the high rank he held, this being universally recognized. His interest in surgery and his devotion to his patients endeared him to the hearts of all who had the privilege of attending the University Medical School during the above years and were stimulated by his enthusiasm, genial sympathy and unusual understanding of his students. This influence will long remain in the minds of his students and associates, and it may well be said that his life and work represent the true ideal fulfilled.

Committee:

HERBERT HEWITT,
GROVER PENBERTHY.

IN MEMORIAM TO

DR. CHARLES THOMAS McCLINTOCK

Another of our time honored colleagues of Wayne County Medical Society has been called to pursue the long trail to that bourne from which there is no return.

Dr. McClintock retired from active life about ten years ago on account of failing health, residing in Asheville, N. C., in the summer and Sarasota, Florida, in the winter. While enroute from Washington to his winter home, to break the long journey, he stopped in Jacksonville to visit his sister. On the night of October 21, 1921, he fell asleep and did not awaken. A long suffering weakened heart failed to respond to the demands

made upon it and the sleep of life passed into the leap of death.

Dr. McClintock was born in Bourbon County, Kentucky, March 16, 1860. He was buried in Lexington, Ky., beside his parents, as he always regarded his loved natal state as his real home.

He married Miss Light Monroe in 1901 in Memphis, Tenn. The wife who survives him is consoled in her sorrow by the love of their only child, Elenore, twelve years of age, who was a great comfort and companion to her father during his declining years.

Dr. McClintock was the eldest of a large family of brothers and sisters and leaves behind three brothers and two sisters.

Dr. McClintock was early attracted to the natural sciences through his love for the great outdoors. After passing through the preparatory schools he spent four years at Wesleyan College in Millersburg Ky., receiving the degree of A. B. This was followed by two years of special study in Johns Hopkins University, in which institution he devoted his attention especially to biology. The following six years were spent in Ann Arbor in pursuing post-graduate studies and teaching. There was conferred upon him in succession by the University of Michigan the degrees of A. M., M. D., and Ph. D., in 1894. During these years he was associated with Dr. Victor C. Vaughan in the Department of Hygiene and gave special attention to the laboratory and clinical aspects of tuberculosis. Later he spent some time in Europe at several universities in the study of various biological questions.

Immediately after the announcement of the discovery of Diphtheria Antitoxin by Behring and Roux, in the autumn of 1894 he was invited by Parke, Davis & Company to organize and equip a laboratory for the manufacture of Diphtheria Antitoxin, which was the first or one of the first institutions of its kind in America. It was soon recognized that a new chapter in prophylactic and curative medicine had been opened demanding the investigation and elucidation of innumerable questions. Gradually from this beginning there was built up an extensive research institution which grappled with the many problems in Chemistry, Physiology, Pathology, Pharmacology and Bacteriology as they arose in the development of the new era.

In 1896 he resigned his position as teacher of Hygiene at the University of Michigan and came to Detroit where he opened an office at the corner of Woodward and Witherell Avenues in the old Homer Warren Building to give special attention to diseases of the throat and chest.

Also in 1896, he was appointed lecturer in Bacteriology by the Detroit College of Medicine, which position he held for over ten years. As a teacher he imparted to his students the most practical information regarding bacteriology and its relation to disease. Many members of Wayne County Medical Society who were graduated from the Detroit College of Medicine will remember how interestingly he presented the new science of Bacteriology, showing by facts and apt illustrations the great importance the study of the subject would have upon their success as future physicians.

He was an ex-president of Wayne County Medical Society and an ex-vice president of the American Academy of Medicine. For many years he was an active member of the Michigan State Medical Society, American Medical Association, American

Society of Bacteriologists, American Public Health Association and other local and national medical organizations.

Dr. McClintock, always an original thinker, was characterized by his breadth of vision and interest in the many activities—in business, science and his chosen profession—going on around him, but he loved best to search for new facts in the laboratory and apply them in the most practical way to alleviate the suffering of humanity.

In developing the field of serum therapy in the United States he played a leading part. During fourteen years he acted as Senior Director of the Biological and Research Laboratories of Parke, Davis & Company, and contributed many papers embodying the results of his researches, keeping always in mind the thought that new facts must be proved beyond doubt by experimental methods, and that no matter how insignificant a well established fact might appear when discovered, it was sure sooner or later to be of importance to some one at some time.

A complete collection of the papers written by Dr. McClintock on medical subjects, beginning with 1892 and continuing for the next twenty years, would fill several volumes. The following titles will give an idea of some of the problems in which he was interested:

Corrosive Sublimate as a Germicide, 1892.
The Nature of the Germicidal Constituent of Blood Serum, 1893.
The Germicidal Properties of Nucleins, 1893.
The Serum Treatment of Diphtheria, 1895.
The Disease Resisting Powers of the Body, 1895.
The Diagnosis of Typhoid, 1895.
The Preparation of Antidiphtheric Serum, 1896.
The Outlook in Serum Therapy, 1896.
Is the Injection of Air in Hypodermic Medication a Source of Danger, 1897.
Is There Tubercular Diathesis, 1897.
Septic Diseases of the Abdomen and Pelvis, 1898.
Enzymes and Immunity, 1900.
The Etiology of Tuberculosis, 1900.
Bacteriology in its Relation to the Public Health, 1900.
Some Sociologic Problems of Medicine, 1901.
The Absorption of Albumins and Globulins, 1903.
Production of Immunity with Over-Neutralized Diphtheria Toxin, 1911.

Dr. McClintock, though always hampered by delicate health, was an ardent sportsman and enjoyed to the limit an afternoon spent in golf, hunting or fishing. To a remarkable degree Dr. McClintock possessed the qualities of patience, persistence, charity and personal magnetism. He ever urged the most thorough and careful training to those who would devote themselves to the care of the sick, recognizing the difficulties with which medical practice is beset but hoping and trusting that the combined efforts of many research workers in this and other lines would gradually lift the art of the physicians to a level comparable with that of the exact sciences. He had no patience with the shams and foibles of society. He was ever quiet and dignified in all his relations with his fellows. In the treatment of the sick his first and last thought was, "how can I be of greatest benefit to the patient?"

Though married rather late in years he was very much devoted to his home and family, preferring to spend a quiet evening at his own fireside rather than participating in any of the excitements and diversions of life. In many ways his charity extended, unknown to his associates, to the unfortunate, the poor and the needy, but always in such a quiet manner that only the recipient of the benefit recognized that the good deed had been done.

His memory will long be cherished by those who knew him as he was highly respected by his acquaintances, loved by his friends and adored by

those intimately associated with him. Truly his life will be an inspiration in future years, as in the past, to those who knew him. He fought the fight of Science, he kept faith in its highest ideals and will reap the reward of the faithful.

County Society News

GENESEE COUNTY

The Genesee County Medical Society met Thursday, Nov. 10, President Miner presiding. Dr. Max Burnell spoke on "A Study of the Forceps, Cases Occurring in 2,082 Consecutive Deliveries." Dr. D. Jickling read a paper on "Acid Intoxication and Acidosis."

On Wednesday, Nov. 16, many of our members attended the district meeting at Owosso, and enjoyed the splendid program presented on this occasion.

Our society has organized a Speakers Bureau, with the object of furnishing speakers for clubs, churches or other organizations desiring the discussion of medical topics.

Dr. Noah Bates, Mich. '66, recently celebrated his 62nd wedding anniversary. The doctor, who is aged 83, was a former president of this society. Many of our members called on the doctor on this occasion to offer their congratulations.

While we have an average attendance at our meetings of about 70, nevertheless, there are some members who rarely or never attend. An attendance committee has been appointed to make an effort to get these members out regularly.

On Wednesday, Nov. 30, we had a most interesting lecture by Dr. C. R. Vreeland, of Grace Hospital, Detroit, on the "Medical Management of Peptic Ulcer." We have never heard a more rational exposition of the subject and both surgeons and internists seemed to agree on his methods of treatment.

The Genesee County Medical Society met on Thursday, Dec. 8, Dr. W. H. Winchester in the chair. Dr. Leon Bogart reported a case of appendicitis complicated by empyema. Dr. George Curry reported six cases of tuberculosis peritonitis, and discussed this disease very fully. Dr. Lafon Jones spoke on "The Medical Examination of School Children," and dealt with the principles involved. All these papers were fully discussed after which the society was entertained at a luncheon provided by the Board of Health.

The Genesee County Medical Society met on Wednesday, Dec. 14, President Miner presiding. Dr. A. C. Furstenberg, Assistant Professor of Otolaryngology, University of Michigan, was introduced and gave a splendid paper on "The Clinical Significance of Foreign Bodies in the Lower Respiratory Tract." The subject was treated in an encyclopedic manner and rendered most interesting by abstracts from interesting clinical cases. Mr. Arthur Pound, contributing editor of the Flint Evening Tribune, also spoke briefly.

W. H. MARSHALL,
Secretary.

CALHOUN COUNTY

The 45th annual meeting of the Calhoun County Medical Society was held at Battle Creek, Dec. 6, 1921.

The request of the State Medical Society that the County Societies make an appropriation for

the support of the legislative committee of the State Society was referred to the Board of Trustees with instructions to report at the next meeting.

The officers and committees made their annual reports.

The attached resolution regarding Dr. Kimball, a former counselor of the State Society, were adopted.

Resolutions urging all schools and institutions of the county to have the Schick test and the prophylaxis for diphtheria carried out were adopted.

The following officers were elected for the ensuing year:

President—Dr. M. A. Mortenson.

Vice President—Dr. Thomas Zelinsky.

Secretary-Treasurer—Wilfrid Haughey.

Delegates to State Society—Drs. W. S. Shipp and George Hafford.

Alternates—Drs. E. L. Eggleston and C. S. Gorsline.

The meeting was followed by an annual banquet.
WILFRID HAUGHEY,

Secretary.

RESOLUTION

Dr. C. S. Gorsline for the necrology committee reported the following resolution:

WHEREAS in the passing of Dr. Arthur S. Kimball, we his friends, the community at large, and the members of our Society have suffered an irreparable loss, and

WHEREAS his high ideals of life, his professional conduct, and his devotion to the alleviation of the ills of humanity should be worthy our profoundest contemplation and reverence, therefore, be it

RESOLVED that the Calhoun County Medical Society in annual meeting assembled, does express its appreciation of his life and noble work, and the great loss sustained by our Society in his untimely death, and be it further

RESOLVED that a copy of these resolutions be made a part of our records, and a copy be sent to his bereaved family, with an expression of our deep sympathy in their bereavement.

Upon motion of Dr. Gorsline, supported from all parts of the floor, the resolution was adopted unanimously.

GRATIOT-ISABELLA-CLARE COUNTY

The December meeting of the G. I. C. was held at Brainerd Hospital Thursday, December 15. President Burch called the meeting to order. A communication was read from the State Secretary relative to a contribution to the legislative fund. After some discussion it was voted to ask each member to contribute one dollar and have the secretary collect the same with the annual dues.

Dr. C. F. DuBois of Alma read a report of his experience in the use of Pituitrin. The doctor had used it in 30 cases out of a total of 104 confinements. He had the percentages figured out in chart form showing the number and degree of cases with and without Pituitrin. His final statement was that he had probably used it too often. This subject seems very interesting to the general practitioner, as nearly everyone present had something to say on the subject.

Dr. M. F. Brondstetter of Mt. Pleasant then reported two interesting cases of placenta previa. One was in a multipara twin pregnancy, total placenta previa, delivered by cesarean operation.

One twin was dead, the other and the mother recovered. The doctor emphasized the importance of keeping the vagina as near sterile as possible. Not to make any unnecessary vaginal examinations, if possible make only rectal examination. This subject was discussed by Drs. Pankhurst and Brainerd.

Dr. R. B. Smith of Alma read an interesting paper entitled "The Indications for Mastoid Operation." This was discussed by Dr. M. F. Brondstetter.

The secretary's annual report was read and accepted.

The following officers were elected for 1922: President, C. T. Pankhurst of North Star; vice president, H. V. Abbott of Shepherd; secretary, E. M. Highfield of Riverdale.

E. M. HIGHFIELD,
Secretary.

SAGINAW COUNTY

The December meeting of the Saginaw County Medical Society was held December 15th, at the Saginaw Club.

After doing justice to a splendid dinner, the Society proceeded to the annual election of officers with the following result: President, Dr. C. H. Sample; vice president, Dr. R. S. Jiroch; secretary-treasurer, Dr. A. E. Leitch.

Dr. McClinton presented an excellent paper on Prostatic conditions, which stimulated a very lively and helpful discussion.

ROCKWELL M. KEMPTON,
Correspondent.

BAY COUNTY

The annual meeting was held at the Wenonah Hotel. Monday evening, December 12th. The meeting began at 6 P. M. with a sumptuous banquet, the compliments of the retiring president, Dr. G. M. McDowell.

At the business meeting following, the Society recommended to the Board of Trustees of the Bay City Hospital that, on account of the institution's inadequate facilities and equipment, it be abandoned and that the Board direct its efforts toward the establishment of a new modern hospital in Bay City.

The Society decided to proceed with the prosecution of the quacks in our community.

Owing to a desire to meet at the members' homes hereafter, the Society decided to revert to the old custom of holding evening meetings. It was also recommended that the Bay County Society would hold more "Ladies' Nights" for the members' wives.

The Secretary's report gave a resume of the year's work and showed a society with 62 members, all active and with their dues paid to date.

The Treasurer's report revealed a flourishing year with a substantial balance on hand.

As a fitting close of a successful administration, Dr. McDowell read one of the most entertaining and interesting papers ever heard by the Society. The doctor had his Scotch wit well tuned up and between his serious thoughts dealing with Medical Legislation, State Medicine, Quacks, etc., were mingled personal pleasantries appreciated best by the local members.

The Society proceeded then to the election of officers with the following results:

President, Dr. A. J. Zaremba; Vice President,

Dr. Paul R. Urmston; Secretary-Treasurer, Dr. L. Fernald Foster (re-elected); medico-legal advisor, Dr. A. F. Stone, delegates to State meeting, Dr. G. M. McDowell, Dr. V. H. Drummond; alternates, Dr. C. A. Stewart, Dr. M. Slattery.

The meeting was attended by 45 members and was a very enthusiastic closing for a prosperous past year.

Adjournment at 11 P. M.

At a regular Society meeting held Monday evening, November 28th, Dr. A. D. La Ferte of Detroit gave a clinic and paper on "Orthopedic Conditions." The meeting was one of the most interesting of the year. There was a large attendance and the interesting subject was thoroughly discussed.

L. FERNALD FOSTER, M. D.,
Secretary.

KALAMAZOO COUNTY

Kalamazoo, Dec. 16, 1921.

At the annual meeting of the Kalamazoo Academy of Medicine, held December 13, 1921, the following officers were elected:

President, Dr. B. A. Shepard, Kalamazoo; vice president, Dr. N. L. Goodrich, South Haven; second vice president, Dr. Malcolm Smith, Allegan; third vice president, Dr. C. H. McKain, Vicksburg; secretary, Dr. W. G. Hoebeke, Kalamazoo; treasurer, Dr. L. J. Crum, Kalamazoo.

Delegates to the State Society are Dr. G. L. Bliss and Dr. A. S. Youngs of Kalamazoo, and Dr. R. P. Stark of Allegan.

Alternates are Dr. F. C. Panoyer of South Haven, Dr. Dan Eaton of Kalamazoo, and Dr. C. D. Hudrutt of Otsego.

Board of censors: Drs. R. Vaughan of Plainwell and A. L. Robinson of Allegan were elected for one year, and Drs. R. U. Adams and A. S. Youngs of Kalamazoo for three years.

W. G. HOEBEKE,
Secretary.

ACADEMY OF SURGERY OF DETROIT

The fourth regular meeting of the Academy of Surgery of Detroit was held on Friday evening, December 9th, 1921, at Grace Hospital, at 8 o'clock.

Meeting called to order by the president.

Roll call. Those present: Drs. Darling, Kelly, J. Andries, Bell, Yates, Knight, Boulter, MacMillan, Herschman, Brooks, Palmer, Meyers, Shawan, Cassidy, Blain, Clinton, Seymour, Witter, C. Kennedy, Potter, Penberthy, McLean, Cullen, Walker, Downer, Barrett, Hewitt. Guests present: Dr. Babcock, Dr. McLean and several of the resident Staff of the Hospital.

Minutes of the last meeting read and accepted.

Resolutions prepared by Drs. Alexander W. Blain and Clark Brooks, on the death of Dr. Theodore A. McGraw, who was an honorary member of the Academy, were read by Dr. Blain, and were as follows:

Whereas, death has removed from our ranks one of the most illustrious, if not the most illustrious member of our Society, whose contributions to the Art and Science of Surgery have done much to bring prominence to our City and State, be it therefore

Resolved, That the Academy of Surgery of De-

troit extend its sympathy to the family of the late Theodore A. McGraw, and record its appreciation for the permanent good which has accrued to our profession and to mankind as a result of his brilliant career as a surgeon, a teacher, an author and a gentleman.

Alexander W. Blain,
Clark D. Brooks.

Dr. Joseph Andries, Chairman of the Program Committee, announces the next regular meeting will be held at Providence Hospital, Friday evening, January 12th, 1922.

The program of the evening was as follows:

"Pre-and Post-Operative Treatment"—J. H. Boulter. Discussion: Drs. Allen, C. Kennedy, Seymour, Bell, Shawan and Boulter.

"Hernia"—Frank A. Kelly. Discussion: Drs. Witter, McLean and Kelly.

"Some Bone Plates Left in Situ"—George P. Meyers. Discussion: Drs. Cassidy, Penberthy, Knight, Palmer and Meyers.

Following the closing of the scientific program, the Academy was made guests of Grace Hospital at a lunch.

The third regular meeting of the Academy of Surgery of Detroit was held on Friday evening, November 11th, 1921, at St. Mary's Hospital, at 8 o'clock.

Meeting called to order by the president.

Roll call followed by reading of the minutes of the last meeting.

Resolutions prepared by Drs. Herbert Hewitt and Grover Penberthy, on the death of Dr. deNancrede, who was an honorary member of the Academy, were read by Dr. Penberthy. Resolutions accepted as read.

Program of the evening as follows:

"Pneumoperitoneum," with lantern slide demonstrations—Joseph Andries. Discussion: Drs. Shawan, MacMillan, Kelly, Boulter, Cassidy, Yates, Herschman, Blain and Joseph Andries.

"Lacerations of the Cervix," with lantern slide demonstrations—Alexander W. Blain. Discussion: Drs. Raymond Andries, Darling, Yates, Shawan, Boulter and Blain.

The meeting adjourned.

IRA G. DOWNER,
Secretary.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

The Michigan Department of Health is glad to receive applications from physicians for full-time work in the state penal and correctional institutions. Address Deputy Commissioner, Michigan Department of Health, Lansing.

At a special meeting held in Detroit, November 27, 1921, the Michigan State Homeopathic Medical Society unanimously passed resolutions of protest against the proposed consolidation of the Homeopathic College and the Department of Medicine and Surgery at the University of Michigan.

The Detroit Ophthalmological and Otological Club gave a Subscription Dinner December 7, 1921,

Following the dinner, Dr. H. S. Gradle of Chicago read a paper on "Estimating Compensation for Eye Injuries."

Thieves broke into the home of Dr. Eugene Smith, Jr., of Detroit, November 27, 1921, and stole about \$1,000 worth of jewelry.

November 29, 1921, Arthur L. Rose, a Cadillac chiropractor, was found guilty, by direction of the Court, of practicing medicine without a license.

The late Joseph W. Dailey left the Protestant Orphan Asylum, Woman's Hospital, and the Home of the Friendless, all of Detroit, \$20,000, to be divided among them.

Dr. and Mrs. Allan C. Fullenwilder, formerly of Detroit, have moved to Hartford Avenue, Redford.

The Detroit Society of Neurology and Psychiatry held their second meeting of the year 1921-1922 in the Medical Building, Detroit. The program consisted of case presentations.

Mrs. Smith, wife of Dr. M. B. Smith of Fenton, died December 1, 1921, of diphtheria.

Dr. Robert McCarrison of London, England, delivered an address on "Faulty Foods in Gastro-Intestinal Disorders" before the Wayne County Medical Society December 5, 1921. The paper was illustrated with lantern slides.

The \$250,000 yacht, "Tamarac," owned by Dr. Torrey of Detroit, was totally destroyed by fire December 4, 1921, in Albermarle Sound, N. C. Dr. Torrey, three guests and crew escaped uninjured.

Twenty-six candidates for the position of Superintendent of the Detroit Receiving Hospital took the Civil Service examination December 5, 1921.

Dr. D. L. Dunlap of Detroit has recently been appointed Manager of the Fellowcraft Athletic Club's basket ball team. Dr. Dunlap was formerly a member of the University of Michigan track team, physical director at Syracuse University and at Allegheny College.

Dr. William Y. Kennedy of Detroit is Chairman of the Athletic Committee of the Fellowcraft Athletic Club.

The report of the president of Yale University for 1920-1921 states that hereafter three years of collegiate work will be required of all applicants entering the Yale Medical School.

Recently Dr. A. D. Holmes of Detroit gave a check for \$100 to the General Library Endowment Fund of the Wayne County Medical Society.

November 22, 1921, Governor Groesbeck ordered the release from the Detroit House of Correction of William H. Currier and Archibald McGill, Pontiac chiropractors, sentenced to serve 65 days and pay \$200 each for failure to obtain a license. The governor said they were released on the understanding that they will not practice in Michigan.

until the Supreme Court has passed on their appeal from the directed verdict of Judge Gillespie of the Oakland Court. Judge Gillespie states that he had given McGilp and Currier an opportunity to appeal before sentenced if they would cease practicing, pending the decision, but they refused. They had served 22 days of their sentence.

A campaign is on for Library Contributing Members in Wayne County Medical Society. Each subscriber promises to pay \$10 a year to help support the library of the Wayne County Medical Society.

The appeal from the directed verdict of Judge Gillespie in regard to McGilp and Currier of Pontiac is the beginning of the campaign of the Michigan Chiropractors Association to test the constitutionality of the Michigan Medical Act. If the Supreme Court upholds it, they will force its amendment in the next legislature or at least they will try to do so.

At their recent meeting the Board of Trustees of the American Medical Association appointed a special committee to report on the question of pay clinics, diagnostic clinics, and group practice. The general consensus of the special committee was that pay clinics have come into the field to remain permanently; that it is the duty of the Association to study the subject and to offer fundamental principles and policies which should be followed in the conduct of such clinics, group practice and diagnostic clinics. During the next three months a committee of three will make, if possible, a survey of certain existing diagnostic clinics and private groups to obtain full information of the methods of administration and policies under which such institutions are conducted and report to the Board of Trustees at their February meeting.

Beginning January 1, 1922, the dues for each active member of the Wayne County Medical Society will be \$15 a year. This amount includes the dues to the Michigan State Medical Society.

The Annual Conference of Health Officers and Public Health Nurses, conducted by the Michigan Department of Health and the Michigan Public Health Association, was held in Lansing, November 28 to December 2, 1921.

Dr. P. M. Hickey gave a talk on "Missions in California," with lantern demonstrations, and Dr. B. R. Shurly read a paper on "Climatic Treatment of Tuberculosis," with charts, before the Detroit Academy of Medicine, November 22, 1921. Following the evening's program, the Fellows and their guests were entertained by Dr. Shurly and Dr. Hickey.

Dr. A. M. Wehenkel of Detroit was chosen, November 21, 1921, Superintendent of the Roosevelt American Legion Hospital, established at Camp Custer for the treatment of tubercular former service men.

Several Detroit physicians discussed the importance of diagnosis in relation to preventive medicine, November 22, 1921, before the Detroit Unitarian Laymen's League. Dr. Frank Sladen spoke

on "Modern Diagnosis," Dr. C. W. Hitchcock on "Nerves," Dr. John T. Watkins on "Blood Pressure and Its Value in Preventive Medicine," and Dr. H. W. Plaggemeyer on "The Kidney in Relation to Preventive Medicine."

The special committee appointed by the Board of Trustees of the American Medical Association to consider the question of pay clinics, diagnostic clinics, and group practice, states that the principles, deemed basic, are: (1) that patients should be received by the clinics only when sent by family physician or received with his knowledge and approval; (2) that so far as possible the patient should be returned to the family physician with written information and suggestions; and (3) that the fee, charged by such clinics, should not be less than that usually charged in general practice (to prevent competition of the clinic with the general practitioner).

The East Side Physicians Association of Detroit met November 24, 1921. Dr. S. Kahn read a paper on "Focal Infections as Cause of the Nephritides." Dr. J. E. Davis, in a short address, recommended that the city be divided into districts (each district to have a chairman and secretary), that these districts be surveyed as to their needs for medical social work, and that welfare centers or local clearing houses be established from which medical cases could be referred to physicians living in their respective zones. The society appointed a committee for the purpose of developing a constructive program of public health activities for the physicians of this society and of Wayne County. Dr. H. W. Pierce introduced a motion whereby steps will be taken to have the various medical associations (as the East Side, West Side, Highland Park, etc.) become recognized branches of the Wayne County Medical Society.

The Detroit Society of Internal Medicine gave a dinner at the University Club, November 14, 1921, to Dr. H. A. Christian of Boston.

The Detroit Medical Club recently presented the Wayne County Medical Society with a check for \$50, in appreciation of the courtesies extended them in the use of the dining room for their meetings and dinner.

In the organization of the reserve force of the United States Army, the following medical assignments have been made: Colonel Angus McLean, Corps Surgeon for the 16th Corps (composed of the 85th Division (Michigan), 86th Division and 101st Division); and Colonel B. R. Shurly, Major E. W. Bolo of 310th Medical Regiment.

The examination of 4,056 children in the elementary grades of the Detroit schools (all of whom had an avoirdupois considerably under the standard weight for their age) disclosed that 3,018 (74 per cent) were suffering from some physical defect. This report of the Detroit Department of Health shows that 1,422 of these children had enlarged or diseased tonsils; that 597 had defective teeth, that 273 had faulty vision, and that 186 had heart abnormalities. A large number of miscellaneous defects were also found. Recommendation slips have been sent to the parents of

the children to acquaint them with these defects with recommendation that the children be taken to their family physician.

Dr. and Mrs. H. H. Runo returned to Detroit the middle of November from a two years' trip around the world.

At the sixth semi-annual meeting of the Genesee County Federation of Women's Clubs, held in Flint during November, Mrs. D. M. Russell of Grand Rapids advocated (1) Farm colony for the feeble-minded, (2) sterilization of the feeble-minded, (3) eugenic marriages, (4) changing of the age of consent from 16 to 18 years, and (5) movie censorship.

Drs. C. D. Camp, D. M. Cowie and Reuben Peterson of Ann Arbor were recently elected faculty members of Alpha Omega Alpha, which elects its faculty members as a recognition for scientific work accomplished.

Dr. A. D. Holmes of Detroit spent two weeks at French Lick Springs during November.

The November meeting of the West Side Physicians Association of Detroit was held November 9, 1921, in the offices of Drs. R. S. Taylor and R. J. Kelly. Dr. C. E. Vreeland read a paper on "Foods and Their Relation to Health and Disease," and Dr. A. D. Emmett on "Vitamins." Refreshments were served at the conclusion of the scientific program.

Dr. Frank R. Starkey read a paper on "The Corpus Striatum and Its Clinical Significance" before the Wayne County Medical Society, November 21, 1921. This difficult subject was extremely well handled by Dr. Starkey. Dr. Reye and McClintock added much to the interest of the evening by their discussion.

Dr. C. B. Lundy of Detroit was nominated for Post Commander of the Fred W. Beaudy Post, No. 18, American Legion, November 18, 1921.

Warrants for ten chiropractors of Detroit, charging practicing medicine without a license, were asked of the Prosecuting Attorney of Wayne County November 19, 1921, by John Roehl, Special Investigator of the Detroit Department of Health. Major Roehl states that this action is not a declaration of war upon the chiropractor by the Detroit Department of Health, but it is an endeavor to enforce the state laws in practicing without a license.

Dr. and Mrs. Oscar LeSeure visited their nephew and his wife, Mr. and Mrs. James S. Holden in Detroit during November. Dr. LeSeure was for many years one of Detroit's best known surgeons. Several years ago he retired from practice. His home is now in Livingstone Manor, New York.

Dr. R. H. Stevens of Detroit was elected First Vice President of the Radiological Society of America at its annual meeting, held in Chicago, December, 1921.

The Regents of the University of Michigan passed December 9, 1921, a resolution to amalgamate the Homeopathic Department with the Med-

ical Department. The resolution declared it to be the sentiment of the Board that the two medical schools be combined and that the special committee appointed be directed to make a report in detail at the next meeting of the Board. Regents W. H. Sawyer, Victor Gore, J. E. Beale, W. L. Clements, J. O. Murfin and B. Hanchett voted unqualifiedly for the consolidation; Regent L. L. Hubbard voted for it with reservation, and Regent F. B. Leland voted unqualifiedly against it.

Dr. Max Ballin read a paper on "Classification of Goitre from an Ethnological Point of View" before the Detroit Academy of Medicine, December 13, 1921.

Dr. and Mrs. Frank Sladen of Detroit announced the birth of a daughter November 30, 1921.

Dr. W. A. Hackett of Detroit was recently appointed head of the Power Boat Regatta Committee of the Inter Lake Yachting Association for 1922.

In 1913 the death rate from typhoid fever in Detroit was 26.3 per 100,000. Between 1914 and 1915 the chlorination system was put into practice, when the death rate dropped to 12.7. In 1918, when most of the young men were away to war, the death rate was 7.4. In 1914 it again dropped to 5.1. The Department of Health attributes this to army vaccination and to the fact that most of Detroit's milk is now pasteurized. With the installation of the filtration plant, the Department expects a further decrease. Most of the deaths due to typhoid fever last August occurred on the East Side and among people who bathed in the Detroit River where it is contaminated by the sewage from Connor's Creek.

Announcement was made December 10, 1921, by the Civil Service Commission that Dr. Thomas Gruber, Superintendent of the Hanneman Hospital, Rochester, N. Y., will be the next Superintendent of the Detroit Receiving Hospital. The doctor obtained the highest marks in the examination.

The newly organized Highland Park Exchange Club elected December 5, 1921, Dr. G. M. Livingston second vice president, and Dr. Frank Suggs, director.

According to Dr. Hugh Cabot, there were only nine homeopathic schools in 1915 in the United States. In 1921 this number was reduced to five, with a total attendance of 447.

The following physicians attended the banquet given Admiral Sims by the Detroit Chapter, S. A. R., at the Hotel Statler, Detroit, December 6, 1921: Drs. M. T. Baker, Ray Connor, J. A. Inches, C. W. Hitchcock, H. D. Jenks, S. H. Knight, F. W. Robbins, W. P. Manton, H. W. Hewett, F. B. Walker, Angus McLean and B. R. Shurly.

The Detroit Medical Club held its regular monthly meeting in the Medical Building, December 15, 1921. Dr. H. W. Yates read a paper on "The Therapeutics of Abortion."

The Detroit Department of Health recently made a study of the Detroit Athletic Club's pool

and the following conclusions are drawn: 1. That a high turnover rate and uniform distribution around the pool are most desirable features in a swimming pool treatment. 2. That the bacteriological standard is the only one upon which we may safely judge the condition of a pool and any method of treatment employed should be frequently checked by bacteriological examination of the pool. 3. That the supplying of a high grade of water to a well designed pool in large quantities will give a fair bacteriological result. 4. That sterilization by ultra violet rays of swimming pool water, if properly operated, gives a water in the pool which compares favorably with the Treasury standard for drinking water.

A son, James, was born to Dr. and Mrs. J. E. Maunders of Detroit, November 29, 1921.

The regular meeting of the Detroit Society of Internal Medicine was held in Detroit November 28, 1921. The main presenter was Dr. T. A. McGraw, Jr. (The Influence of the Endocrine Glands on Body Growth); the literature presenter was Dr. H. M. Rich (Tuberculosis), and the clinical presenter was Dr. L. F. C. Wendt (Hyperthyroidism). Drs. T. A. McGraw, Jr., H. M. Rich and C. E. Vreeland were elected members of the Executive Committee. Dr. Fred Buesser was elected Secretary.

Dr. J. T. Case of Battle Creek, who departed for Europe for a six weeks' trip last October, while returning to Paris on November 21st, was seized with a suppurative appendicitis and operated upon at the private hospital of Prof. Gasset. His recovery is well advanced. Dr. Case sailed for home December 18th.

In compliance with the arrangements made in Philadelphia, the Michigan Section of the American College of Surgeons will combine with the Ohio Section in the holding of the 1922 meeting. The meeting date has been set for December 8 and 9, 1922, at Cincinnati, Ohio.

Dr. D. Emmett Welsh of Grand Rapids will leave for California the latter part of January for his winter vacation.

Dr. J. H. Burley has presented to Almont his home for hospital purposes. An organization of a hospital association has been perfected to receive the gift. Capacity for twenty-five patients will be provided. Dr. Burley will make his home in Port Huron.

In a five-day campaign ending December 17th, the city of Flint raised \$73,109 for the new Woman's Hospital. In spite of considerable business depression, this is a splendid demonstration of Flint civic spirit. A very fine building with spacious grounds has been secured on Lapeer St. This building will be remodeled at once and fully equipped. When this is done, the present Woman's Hospital on Harrison St. will be closed. The new hospital will care for maternity and pediatric cases.

The following candidates filed applications for the examination for superintendent of the Detroit Receiving Hospital: David Downing, Edmund

Bolio, John Keating, Frederick Heazlit, Andrew Denike, Maxwell Silver, James Crofelt, Patrick Looby, Russell Atchison, Clayton Benjamin, all of Detroit; George Kenny, Eloise; Thomas Gruber, Rochester, N. Y.; Harold Law, Dearborn; Edward Fisher, Dearborn; Charles Sanborn, Washington, D. C.; C. C. McCullough, Chicago; W. H. Curtiss, St. Louis. Frank Deacon, Chicago; Charles Strotz, Philadelphia; James Hammers, Embreeville, Pa.; Clement Doherty, Richland Center, Wis.; Paul Waldron, Chicago; Chester Carlyle, Chicago; H. H. Puirton, Conetoe, N. C.; N. A. Springer, Baltimore, and Donald Morrill, Ann Arbor.

The Western Michigan Medical Travel Club met in Grand Rapids December 16, 1921.

Dr. Bergstrom of Bay City is still seriously ill.

The following department heads have been appointed on the Mercy Hospital Staff, Bay City: Surgery, Dr. W. R. Ballard; medicine, Dr. John McLurg; obstetrics, Dr. T. A. Baird; pediatrics, Dr. L. Fernald Foster; X-ray, Dr. R. E. Scrafford. eye, ear, nose, throat, Dr. Charles Baker; pathology, Dr. C. L. Hess.

The West Side Hospital, Bay City, has closed its doors on account of lack of funds.

Dr. Swantek, Bay City, is seriously ill at the University Hospital, Ann Arbor.

Correspondence

To the Editor:

Any one with half an eye can see that the people are losing confidence in the doctors—they have lost confidence in and respect for the medical profession, and instead of conditions getting better they are growing worse. Who is to blame for such a condition of affairs? Why, as usual, the doctors themselves.

In the first place think of a class of professional men letting a bunch of half baked pinheads like the chiropractors put things over on them without making any effort to combat their propaganda of advertising. Why not get up a fund to counteract such stuff and tell the people what the profession has done for them. This will help the people to see things in their proper light.

Another thing I would advise is that the doctors help put through legislation requiring an examination of physicians in regard to new things in medicine and surgery, say every two years. There are too many "dead ones." Think of a doctor not knowing what "lethargic encephalitis" is or what the positive Wassermann test signifies! You say that can't be possible. It is, for I know them. And those are not the only things they don't know.

Another thing that would help to establish the confidence of the people is to kick out of our societies a bunch of "shysters" who go into a home and throw the other doctor's medicine out of the window; who go out on the street and solicit

business like a street walker; who tell people that if they had taken another dose of the other man's medicine it would have killed them; who meet another man's patients on the street and tell them they would lose their eyes or their arms if they didn't change and come to them; who send word by a neighbor that washing out a stomach or a bladder is a terrible thing and apt to kill the patient; who send word to a group of another man's patients who were to be vaccinated that their physician was a dangerous man who did not know how to vaccinate and would kill them; who tell another man's cases of tuberculosis that they are one day too late and if they had come the day before they could have been cured.

You will say that such conditions cannot exist in an honored profession. I say they can and do and I come from a family of doctors and have practiced medicine for twenty years.

Another thing that would establish confidence would be to take away the license of any doctor attending a patient while intoxicated or who has been found guilty of doing illegal abortions.

Let us take major surgery out of the hands of children who graduate today and without special training become a surgeon at once. Dr. Randall has proven that the mortality of appendicitis is on the increase. It is easy to see why. Every Tom, Dick and Harry is taking a hack at the unfortunate patient's abdomen—playing the surgical game, they say, and getting the easy money.

The little boys want to start out at the top now instead of at the bottom—they want a home on the boulevard and a Packard twin six at the start and surgery and medicine get a black eye. Operating on pneumonia cases for appendicitis doesn't look well. Taking a patient's money for a hysterectomy (vaginal) when all that was done was to curette and tampon the uterus which was later removed by a real surgeon is not nice. Bragging about making forty or fifty calls in one day doesn't appeal to one's patients. They wonder what they are getting for their money.

Then there are some of the specialists. Ha! Ha! It is to laugh. What jokes some of them are! No man should be allowed to palm himself off as especially qualified until he has had a few years of general practice and has passed an examination in the specialty he chooses.

The facts are that the people are getting wise to the fact that they are being stung by a bunch of men who are lazy, quite ignorant of modern medicine and therefore more or less incompetent. This class of men is altogether too numerous.

Our profession is judged more by the harm done by these men than by the good done by the men who take "Do unto others as you wish to have others do to you" as their motto.

Let us beware. If we do not do something for ourselves the state is going to do it for us and to us.

Sincerely,

A GENERAL PRACTITIONER.

Detroit, November 30, 1921.

Dr. Frederick C. Warnshuis,
Secretary-Editor, Michigan State Medical Society,
Grand Rapids, Mich.

My dear Dr. Warnshuis:

The statement attributed to me, to the effect that I would prefer a charge of manslaughter against

every physician who had a death from diphtheria wherein anti-toxin had not been administered early enough, or in ample dose, is not accurate. I expressed myself emphatically in condemnation of that minority of physicians who in the presence of symptoms suggestive of diphtheria fail to resort, with the utmost promptness, to diagnostic laboratory procedures and to give the affected children the benefit of the doubt by the prompt administration of anti-toxin in adequate doses, especially in cases where the diagnosis may be made with a reasonable degree of assurance on the basis of clinical findings.

It has been found by public health administrators who have made investigation in cases of deaths from diphtheria that a relatively large percentage of the fatal cases have received anti-toxin after the disease has been in progress for a number of days, or else that the amount of anti-toxin given has been inadequate. Where this is the case, the physician who is responsible for delay in administration, or administering an ineffective dose is culpable and ought to be dealt with drastically.

In the address which you allude to, I stated that it was my purpose to take as drastic action as the law would permit whenever evidence pointing to neglect could be definitely established.

Very truly yours,

ROYAL S. COPELAND,
Commissioner.

RESOLUTIONS ADOPTED BY ST. CLAIR COUNTY MEDICAL SOCIETY

Resolved, That it is the sentiment and express wish of the members of this Society that existing controversies and contentions between the University of Michigan and the Medical Profession of the state be amicably composed; that an early meeting be had of representatives of both organizations for the purpose of adjusting points in dispute, to the end that full co-operation may be attained; and that we tender support of a publicity campaign, having for its object, the informing of the citizens of this State in respect to advances made in Scientific Medicine with the beneficial results to humanity.

The Secretary is requested to forward copies of the foregoing action to the Secretary of the State Medical Society and also to Dr. J. B. Kennedy, State Chairman of Committee on Medical Education.

Michigan State Medical Journal,

Grand Rapids, Mich.

Gentlemen:

Please find enclosed five dollars (\$5.00) for year's subscription to Michigan State Medical Journal. I got a single copy for a special article and I enjoyed the entire Journal. The general comments are also interesting. I am,

Sincerely yours,

ARTHUR C. JONES.

PRUSSIANISM AT HOME

To the Editor of Saturday Night:

What would you do if you were suddenly taken sick? Call some physician whom you liked and trusted, as you still may do.

Suppose you were obliged to have some certain doctor whether you wanted him or not! Suppose you regularly paid for medical service whether you needed it or not! Suppose you and your family were liable to "medical inspection," at any moment! Further suppose that your most intimate relations were subjects of investigation and report by public employes at stated intervals. Would you like it?

Fanciful questions, you say, yet just these things have happened elsewhere and may very well reach us shortly.

Strange things are happening at the University of Michigan. There is evidence to make us believe that the University seeks to control the practice of all the healing arts in this state which means the saddling of the people with a tax-fed horde of impractical theorists under bureaucratic management which would out-Prussianize the kaiser.

If such control is permitted no man's home, wife or family will be safe from the officious meddling of smug "investigators;" it leads us ultimately to the status of pedigreed stock.

What are some of these strange things?

Four years ago the then dean of the medical department publicly advocated the complete militarization under the war department of all schools, above the high schools of this country; the selection of careers for students according to their fitness and compulsory placing of graduates according to the needs of the country. All to be managed by a bureau of the war department.

During May, 1920, the present dean of the same school made a speech in which he advocated the building and maintenance of hospitals by each community (we believe the state to be districted) entirely at local expense, but to be managed by the University. Two great advantages were claimed, first the control of local physicians—for of course no other hospitals could compete with those operated at public expense and the physicians of the community would have "to be good" or be barred from the hospital and, second, all "interesting" cases would be assured to the University for teaching purposes.

This plan was so plainly "state medicine" that a storm of protest was aroused and the faculty of the medical school eventually published a statement denying any friendliness toward state medicine, but favoring "community service." The dean's original speech has never been repudiated.

What do we mean by "state medicine?" According to Dean Cabot, of the University of Michigan, "the state has been gradually insinuating itself into the practice of medicine for two generations."

Why?

When man forsook the wilderness for community life safety rules became necessary, to protect all members from each other—refuse disposal, fire hazards, quarantine, compulsory vaccination and the like. We have even made it a felony for a man to burn his own building, surely an artificial crime. All measures of protection, all defensible only on the one ground of public danger.

Sanitation and preventive medicine have achieved miracles in the past few decades.

The word "welfare" has become a shibboleth. Fired by such wonderful feats as the cleaning up of Havana and Panama, community doctors—physicians to masses rather than to individuals—have sprung into the lime-light in every little town.

Enthusiasm or self-interest has led many men to suggest various measures of compulsion "for the good of the community," where no real danger threatened, basing their action on the precedent of society protection and the results of preventive medicine.

Only protection of the public from actual dangers justifies compulsion of the individual; the use of compulsion to "improve the race" or for any reason other than protection constitutes "state medicine." In this connection we note that there are many kinds of compulsion—social, as with our school children now—financial, as with the infamous Sheppard-Towner bill just passed—direct legal command, as the unconstitutional laws of sterilization in some states. Of all these financial compulsion is probably the most insidious and degrading for it amounts to nothing less than the money bribing of a state, an institution, a physician, or an individual, as the case may be, to surrender inalienable rights to the control of outsiders. It leads to pauperization.

Advocates of "state medicine" always deny the allegation and masquerade under some other title. An extensive literature has grown up under a variety of titles, Sick Benefit, Health Insurance, Social Insurance, Compensation, Old Age Pension, Maternity Benefits, Community Service and the like. To any plan, however camouflaged, which includes compulsion—whether through finances, through social pressure, or through direct legal command—the generic term "state medicine" may be applied.

Last February the president of the university invited every doctor in the state to meet in Ann Arbor to discuss the relation of the medical school to the people and the profession. The subject discussed was his announcement of the policy of employing only men who could give their entire time to the University and then of charging the patient a fee for the work done. It was brought out that the University had charged one individual \$1,500 for an operation.

Violent protests were immediately voiced throughout the profession, for the doctors know that every patient who formerly went to the University Hospital paid, and sometimes dearly, not in money, but by being "demonstrated," by being used as teaching material. "Clinic cases," these words mean much to one who knows. At present in order to get any patient to be a "clinic case" and at the same time pay a round fee he must be convinced that there, and only there, can he receive the high skill which is to restore him. This of course is false, no individual doctor could get away with it, but the glamour of the great University, her past record, her present size, the atmosphere of greatness, that's different. However, the doctors represent it as not square to the people.

Also the state entering into competition with private citizens is the beginning of state medicine. Government operation of private business is not

popular in this country. Efficiency flies when boards and bureaus come in. Political plums grow in soil fertilized by public gold, hangers-on appear by magic and the dispensation of patronage becomes an hissing and a by-word. Our war experiences have sickened us all of such paternal, socialistic—often grafting—schemes.

Notwithstanding repeated protests from medical organizations all over the country, the University has continued this policy.

However, more radical plans were probably dropped for the time because of the violent opposition encountered together with the presence on the campus of another medical school (homoeopathic) of equal rank and independent power which actively combatted all schemes of state medicine and which did not charge professional fees under the guise of possessing super-human skill.

For 47 years two separate medical schools in the university have provided healthy competition and salutary restraint for each other. No bizarre plan could be carried out by either school.

No more was heard of state medicine, but events moved swiftly to their conclusion, which came December 9, when the existence of the homoeopathic school was officially ended by amalgamation with the other school. This means annihilation.

Four days later President Burton announced a "campaign of education" whereby the citizens of Michigan were to be acquainted with the "wonders of medicine" through travelling University speakers. He characterized it as "one of the most significant steps ever attempted by the University."

Very peculiar methods were used to wipe out the homoeopathic school, methods which bespeak the necessity for haste and a strange disregard for personal consequences not readily explained.

The school had been vastly neglected for some 10 years and was slowly dying from lack of interest and support from the regents. In fact the regents' committee having it in charge (Murfin and Gore) stated in July, 1920, that they did not know much about it and were glad to be informed. Five more years of the same treatment and it would have died from sheer neglect. Why was it necessary to risk so much to close it speedily?

In July, 1920, President Burton stated that amalgamation of the two schools at Minnesota "was a crooked farce," today he favors the same amalgamation at Michigan.

In October, 1920, President Burton forbade any faculty member to make any request of any regent or to go to Lansing where, he stated, he was going to make requests for large sums from the legislature.

In January, 1921, the president suggested the amalgamation of the schools to the University committee of the legislature. Before proof of this was adduced he repeatedly stated, in writing, that the idea originated "entirely upon the initiative of the legislature." When the concurrent resolution, requesting the regents to amalgamate the schools was introduced last February, the president stated that he knew nothing about it, that it would make no difference anyhow, that the legislature could not order amalgamation and that the school would be continued just the same. All members of the University faculties having been forbidden to go to

Lansing no homoeopathic member dared present his case before the legislature.

At a meeting to discuss the concurrent resolution, held in Detroit, Dean Hinsdale, of the homoeopathic school, asked the profession not to oppose it, saying, "President Burton assures me that it will not amount to anything and that he will take care of the school anyhow. So, please gentlemen, do not go to Lansing and fight this for it will appear as though we did not trust the president's word." No representations were made to the Legislature, the resolution was not discussed, but rather passed by default. The profession trusted the president's word.

During this same period President Burton told Gov. Groesbeck that the Homoeopathic Medical school cost the state \$200,000 a year, this belief and lack of opposition being the reason for the easy passage of the resolution. The official figures are that the average net annual cost the last five years has been \$16,732.75.

The man who pays taxes on \$10,000 has averaged four cents a year for valuable medical competition on the campus.

May 6, 1921, President Burton sent a circular letter to homoeopathic physicians of the state urging them to make the "next year a stimulating, satisfying, and prosperous one for the homoeopathic medical school." Again, May 31, 1921, he wrote to a committee of the state society urging them to solicit funds for the school. These letters were written nearly four months after his suggestion of amalgamation to the University committee, and his slip of speech to the governor.

Suddenly on Oct. 29, 1921, the president stated that recognition of the concurrent resolution must be taken.

Strange that so prominent an educator should so involve himself. There must have been some strong motive. What was it?

Dec. 9, the regents and the president held a public hearing. The homoeopathic profession presented their case and rested. Regent Gore, apparently as spokesman, made a speech inaccurate in all important particulars, among others stating that the school had always had "generous support," whereas the minutes of the board show that \$70,000 formally promised the school in 1916 has never been given it. In this speech he definitely foreshadowed amalgamation.

Regent Murfin stated that the school cost \$47,000 and was only quieted when his own previous admission of ignorance was quoted.

Regent Hanchett said, as a certain statement was about to be made, that he would say in advance, that he didn't think it was going to be true.

Regent Leland evinced a genuine desire to judicially ascertain the truth.

President Burton was asked where the concurrent resolution originated and stated that he did not know.

Immediately a letter was read from a member of the University committee of the legislature stating that the original suggestion came from President Burton himself.

President Burton instantly adjourned the hearing.

The fate of an old department of our University actively desired by at least 15 per cent of our citizens was then decided in executive session by the board of regents.

Of course the decision was to amalgamate—Regent Leland dissenting.

Why?

State medicine. Opposition from entire medical profession. Homoeopathic school a stumbling block. Block removed. "Education of the people," immediately started, propaganda if you like. What next?

Who pays for the University? Whose University is it anyhow?

Yours sincerely,

T. G. YEOMANS, M. D., F. A. C. S.
St. Joseph, Mich., Dec. 20, 1921.

Frederick C Warnshuis, M. D.,

Editor, The Journal of the Michigan State Medical Society,

Grand Rapids, Mich.

Dear Sir:

As one of your advertisers we wish to submit the enclosed information concerning some educational meetings just completed in this state, for the benefit of eye, ear, nose and throat doctors.

The enclosed invitation was sent by us to all oculists on our books and these meetings just completed have been exceptionally well attended, and we are the recipient of considerable comment and thanks for the opportunity thus afforded.

The wind-up of the meetings and demonstrations is being held today in our Dispensing office at 305 David Whitney Building, Detroit, and all the instruments listed on the enclosed notice together with many others, will be on permanent display and ready for demonstrations at any time thereafter.

A cordial invitation is hereby extended to all doctors in Detroit or passing through Detroit, to visit our David Whitney office, and inspect the very latest ophthalmic instruments. We will be pleased to serve the profession at any time in any manner within our power and we wish to take this occasion to thank the different societies for their co-operation during the meetings above referred to.

This is the first time we have sent you any extensive news item, but from the interest displayed by the doctors, we feel that the above will be of interest to them.

Thanking you in advance for any publicity you may give the same, and with the season's best wishes, we are

Yours very truly,

JOHNSTON OPTICAL CO.

Estate of Geo. Johnston, Deceased.

INVITATION

We are pleased to inform you that we have secured the services of Mr Bowman, a representative of the scientific staff of the Bausch and Lomb Optical Co., to demonstrate our complete line of the latest ophthalmic instruments including the large Gullstrand Ophthalmoscope.

In order that all our customers in Michigan may have a chance to witness these demonstra-

tions, we intend to hold meetings throughout the state and we cordially invite you to attend the meeting that will best suit your convenience.

The program follows:

Detroit meeting, 8:00 P. M. Tuesday,
Nov. 22nd. J. O. Co., 318 State St

Grand Rapids meeting, 8:00 P. M. Monday, Nov. 28th. Pantlind Hotel.

Lansing meeting, 8:00 P. M. Monday,
Dec. 5th. Downey Hotel.

Flint meeting, 8:00 P. M. Thursday, Dec.
8th, Durant Hotel.

Below is a list of a few of our most important instruments that will be demonstrated at these meetings:

Stereo-Campimeter.

Binocular Corneal Microscope.

Prentice Phoria Indicator.

Lens Comparator.

Ives Visual Acuity Test Object.

Gullstrand Ophthalmoscope.

Incidentally, Mr. Geo. O Johnston, the president of our concern, for whom it would be a physical impossibility to call on all our customers individually, will be present at these meetings and is anxious to meet you.

JOHNSTON OPTICAL COMPANY

Grand Rapids Detroit Saginaw
November 11, 1921.

Book Reviews

EPHRAIM McDOWELL, "FATHER OF OVARIOTOMY" AND FOUNDER OF ABDOMINAL SURGERY—WITH AN APPENDIX ON JANE TODD CRAWFORD by August Schachner, M. D., F. A. C. S., Louisville, Ky. Octavo volume of about 350 pages. Attractively printed and profusely illustrated with plates in double tone. Price \$5.00. J. B. Lippincott Company, publishers, Philadelphia and London.

Ephraim McDowell in his crude and wild but picturesque setting, amid the daring and the coarseness of the frontier, as a country doctor practicing his profession without a diploma, singly and alone, through his ovariectomy added more to the art of surgery during the short space of his career than all of the rest of the surgical world combined added in the same number of years and during the same period.

When he gave to the world his ovariectomy, he laid the cornerstone of the most wonderful and fruitful domain of surgery ever known to the human mind. He placed in the diadem of the art and science of surgery its most brilliant gem and in the eons of time becomes the indirect emancipator of countless millions of human beings from protracted suffering and premature deaths. But after all this priceless service, he practically remains unknown and unhonored.

The story of McDowell's life is a story of the greatest neglect to which one of the foremost hero's of medicine and benefactors of humanity has ever been exposed. The motif of the book is to call attention to this neglect and to arouse an interest in this pioneer master of abdominal surgery.

The lessons which McDowell's ovarian surgery taught are thoroughly emphasized. The author explains how abdominal surgery gradually evolved from the facts which these lessons so clearly and

firmly, establish and why McDowell is credited with the title of founder of abdominal surgery.

The struggle which attended the adoption of ovariectomy and which lasted for fully a half a century is vividly set forth, and the persecutions to which the earlier defenders were subjected is of the keenest interest. It was not until 1861, or more than a half century after McDowell's first ovariectomy before a favorable word was said for it by a French professor in a French university. In England the situation was very little better as it was not until a third of a century thereafter that a London hospital could boast of a successful ovariectomy.

A fascinating review of the more important events of that interesting period and place in which he practiced is interwoven throughout the narrative. It is a review of the times and contains thumb nail sketches of persons who directly or indirectly became associated with the man and his work during his own period and the period that followed.

The importance of the frontier in medicine and in the development of our national characteristics are strikingly portrayed.

The book contains the first real attempt to present a history of the heroine whose co-operation made the premier ovariectomy a possibility. This feature involved a patient and an unusual investigation that ended in the discovery of her grave in an obscure cemetery almost a century after her death.

It contains an elaborate bibliography and a carefully prepared index that makes it valuable as a work of reference upon McDowell and his time, but also upon ovariectomy and the earliest efforts in abdominal surgery. It should find a place in every reference library technical or otherwise, and no surgical library is complete without this long delayed effort upon so important and such a fundamental subject.

THE GLANDS REGULATING PERSONALITY. Louis Berman, M. D., Associate in Biological Chemistry, Columbia University; Physician to the Special Health Clinic Lenox Hill Hospital. The MacMillan Company, Publishers.

Why do individuals differ? Why does one man succeed, while another fails under the same conditions? What divides them into so-called "types?"

The author shows how man's individuality is controlled by the quality and quantity of internal secretions acting in him.

Based on the most recent researches in physiology and psychology, there is a convincing quality in what Dr. Berman says, a fascinating portrayal of the personalities of men, a charm of style—all making this an absorbing book and one of decided value to him who is interested in human beings.

VICE AND HEALTH, PROBLEMS—SOLUTIONS. John Clarence Funk, Director Bureau of Protective Measures Pennsylvania State Department of Health, Scientific Assistant U. S. Public Health Service. 174 pages, price \$1.50.

The health and morals of your community depend upon you, the men and women voters, the fathers and mothers of the boys and girls of today.

The findings of the Army Draft Boards showed it to be five times safer for the boy in the army

than for the boy in the home town. The girl in the home town has no greater safety.

What can your home town do about it? Must the red light burn?

This volume has been carefully prepared by a national authority and sets forth facts, the possession of which is necessary to a successful handling of this phase of community and family welfare.

The author emphasizes the fact that your children's and your own happiness and health, may depend upon the amount of properly educated interest which you must help stimulate in your locality against vice and its disease sequences.

The book presents in compact, non-technical form a discussion of the social, economic, moral, legal and health problems involved in the suppression of vice, the safeguarding of youth and the protection of the public health, and should commend itself to all those interested in national, local and family welfare. It is written for you.

ADRENALIN

Adrenalin has been associated with the name of Parke Davis & Co., for so many years that one suggests the other. It was that firm which met the challenge of therapeutic progress in 1900 by directing its research work to the isolation of the active principle of the suprarenal gland, and which early in 1901 announced the success of its investigations and experiments. Since then Adrenalin has been universally recognized as a P. D. & Co. product—which it still continues to be.

A neat little brochure on "Adrenalin in Medicine" is offered by the manufacturers to interested physicians.

THE JOURNAL
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TO UTILIZE
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EXPRESSION OF
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ON
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No. 2

Original Articles

THE GENERAL PRACTITIONER AND MEDICAL CERTIFICATES OF INSANITY*

H. V. HENDRICKS, M. D.

Assistant Physician, Traverse City State Hospital.

Most general practitioners do not show much interest in psychiatry. This is unfortunate, but is not strange in view of the fact that they meet and have to deal with but few cases of mental disorder. However, almost every practitioner sooner or later finds himself called upon to express a definite opinion as to whether or not a certain individual shall be called insane and deprived of his liberty. While most of the physicians' certificates on commitment papers are reasonably satisfactory, yet to anyone who has had experience in a hospital for the insane, it is evident that many physicians do not understand how to examine a person with reference to this question, or how to state properly the result of their examination. It is not my intention to discuss in this paper psychiatric diagnosis, or to outline in detail the methods of examination, or to discuss at length which cases require commitment and which do not. However, I hope to give a few suggestions which may be of practical value.

The word insanity has come to have more of a legal than a medical significance because there is a tendency to omit the term from psychiatry and substitute such terms as mental disease, psychosis, etc., for it. Dr. William A. White states:

"Insanity should not be used as a medical term at all. It is solely a legal and sociological concept and so used to designate those members of the community who are so far from able to adjust to the ordinary social requirements that the community segregates them (forcibly perhaps) and takes away their rights as citizens. Insanity is a form of social inadequacy which medically

may be the result of many varieties of mental disease."

As we are dealing with legal as well as medical aspects of the question, we find it practically necessary to use this term. An all-inclusive and perfectly satisfactory definition of insanity is difficult to give but the following definition may be used as a very convenient standard: "Insanity is a manifestation in language or conduct of disease or defect of the brain."

I wish to emphasize the fact that in the last analysis it is the conduct of the individual that brings him before the law. Anyone may have just as many peculiar ideas as he desires, or he may be abnormally sad, or abnormally happy, or he may show other abnormal traits. It is true that such traits indicate a potential source of trouble and yet the individual may be at large, because the mere presence of these conditions does not of itself constitute sufficient ground for legal interference with liberty. As a rule, it is only when this individual shows by his actions or language that he is going to harm himself or others or, that he is interfering with the welfare of himself or others that the law recognizes the necessity of commitment. It may be that in time the new movement known as mental hygiene will demand that the law take a broader view than this, but in this paper I am dealing with conditions as they exist today.

It is advantageous to mention here the different parts of the commitment paper required by the state of Michigan. First, there is a copy of the petition setting forth the reasons why this person needs attention and asking the probate court to admit him to a hospital. This is usually made out by a layman, frequently one of the patient's family, but not necessarily so. Then there are copies of two physicians' certificates, and finally a copy of the order made out by the judge directing some individual to convey the patient to the hospital and directing the superintendent of that hospital to receive and hold that patient. In addition to these four, if a probate register made these copies,

*Read at meeting of Grand Traverse-Lelanau County Medical Society, November 8, 1921.

there is an "exemplification of record" from the register, stating that the copies are true.

Let us next consider a question which doubtless occurs to examiners from time to time: What if I cannot decide whether the patient is insane or not? My answer is that the following rule ought to govern the physician: Unless he is satisfied that the patient is insane and requires commitment, he should refuse to sign the certificate. This is his privilege, for the law expressly states that the physician who has been instructed by the probate judge to examine an individual with reference to insanity shall be paid for his services whether he finds the individual insane or not. Of course, there are many cases where it is difficult to decide this question. It is not strange that the general practitioner should find this true when we reflect that specialists in this line at times also find great difficulty in settling this matter.

In this paper we are, in general, assuming that the physician is dealing with a case where this question can be answered in the affirmative quite readily. I propose to discuss some of the reasons why physicians should perform this service as carefully as possible. I am also going to discuss a few misconceptions under which they often labor and some of the mistakes which they make on commitment papers. I will then give various examples of unsatisfactory, as well as of satisfactory certificates, and finally I shall suggest a few simple rules. If any of my remarks seem too pointed you are urged to bear in mind that they are intended as constructive criticism and are given in a kindly spirit.

Now, why should the physician examining with reference to insanity pay careful attention to the task before him? In the first place, the law demands it. According to the Public Acts of Michigan, 1903, No. 217, Section 15,

"certificates of insanity must show that it is the opinion of the physician that the alleged insane person is actually insane and shall contain the facts and circumstances upon which the opinion of the physicians is based, and show that the condition of the person examined is such as to require care and treatment in an asylum for the care, custody and treatment of the insane."

Any certificate which the physician makes and which is accepted by the Probate Judge, evidently serves, I suppose, the purpose, but I expect to show examples where the requirements mentioned above, are not carried out. It is our experience that the character of the physicians' affidavits depends very largely on the strictness of the Judge of Probate in the county where this

examination is made. In some counties the certificates are almost uniformly good, and in some other counties they are, to say the least, generally indifferent.

In the second place, the case may, at some time, come into court. It is true that this seldom occurs, but then it is also true that suits for malpractice in fractures, for example, are not especially common. Nevertheless the wise surgeon in such a case takes various precautions to offset any possible legal trouble. I have in mind a case which occurred some years ago.

A woman was examined by two physicians and committed. It was found practically impossible to establish a psychosis and so she was released after a certain period of observation. She turned about and brought suit against the examining physicians. During the trial it was brought out that these two physicians had not examined her thoroughly and the certificates which they had written gave very flimsy reasons for declaring that she was insane. Although, as a matter of fact, in this case the defendants won, yet they were put to considerable inconvenience and you can readily see that it was a disagreeable experience for them.

Such cases are more apt to come into court if a considerable sum of money is involved and it sometimes occurs that when the estate of a deceased person is to be settled, the question of his sanity at the time of making the will is brought up in court. If this person had been committed at some time or other, it is easy to see that the physicians' certificates might have to be presented in court.

In the third place, a satisfactory certificate constitutes a sort of record of the case, which may be found very useful at some time in the future. Furthermore, the satisfactory certificate oftentimes gives the hospital some definite data which may not be given otherwise. Finally, the difference between a satisfactory examination and affidavit and an unsatisfactory one, is the difference between good, conscientious work and work that is otherwise. Certainly the curtailment of personal liberty is a serious matter and, even if done for therapeutic purposes, should be viewed as a matter of just as much importance as the reduction of a fracture or the removal of an appendix.

The mind of the average layman has many misconceptions in regard to medical matters in general, and especially in regard to mental disorders. It seems strange and yet it is true that some of these latter misconceptions are shared by the general practitioner. Now, in the affidavit which the petitioner, usually a layman, makes asking for the commitment of the individual, we sometimes find more satisfactory informa-

tion than in the affidavits given by the examining physicians. This is due to a misunderstanding of the physicians' duty in the case.

The first of these misconceptions is that the examining physician should make a definite diagnosis. In Michigan, at least, this is not the case. Presumably it has not occurred to those in Michigan who have this idea that this is absurd. Suppose you have an eye-case which you are referring to an ophthalmologist. Is it necessary that you arrive at an exact diagnosis before you refer the case? Certainly not. Does it assist the ophthalmologist very much if you make a diagnosis for him? Of course not. The plain facts are that you have a case which you believe should come under the care of this specialist and naturally you are willing to leave the diagnosis, as well as the treatment, to his judgment. Of course, there is no reason why you should not make a diagnosis if you desire, but you should regard this as a secondary matter. The psychiatric diagnoses offered by physicians in their certificates are frequently, if not usually, wrong. How absurd it is for one with little experience in a particular line to offer a definite diagnosis after a very short examination, when those of much experience are often in doubt about the diagnosis even after a long observation! If you do make a diagnosis, be reasonably sure that it is a correct one, but as already mentioned, a diagnosis is not necessary.

Secondly, many examining physicians seem to think that they are not discharging their professional duty unless they use technical, and more or less mystifying, terms. The result is often a very poor certificate which means but little. As likely as not the technical terms are incorrectly used and occasionally terms occur that are contradictory. Perhaps the most common example is the use of the word hallucination. This term is frequently used as if synonymous with delusion. Now, a delusion is a false belief which cannot be corrected by ordinary argument or experience, while an hallucination is a false perception, there being nothing external to give rise to this perception. Examples of delusions are as follows: Ideas of fabulous wealth, ideas of impending torture, ideas of conspiracy for persecution of the individual, etc. The following are examples of hallucinations: The patient thinks he hears his children, when, as a matter of fact, they are many miles away; he thinks he sees a lot of persons and animals in his room; he is sure that he can taste poison in his food or that he smells poison-

ous gases in his room; etc. The word aphasia is sometimes used incorrectly. This means inability to speak, if motor, or to understand spoken words, if sensory, and is due to a definite brain lesion. It should not be confused with mere mutism, which is psychic in nature. If you use any of these technical terms in naming symptoms be sure that you are using them correctly and it is wise to mention why you believe these symptoms are present. For example, instead of saying simply he has delusions, it is better to add: believing that he has enormous wealth, or whatever the case may be. If you use such words as echopraxia, echolalia, etc., be especially careful that you understand what they mean and give in a little detail your actual observations that lead you to use these terms. The words melancholia and mania are often misused and occasionally both are used in the same affidavit. The first, of course, is characterized by extreme sadness, and the other in its best sense carries with it the idea of an abnormally happy state. It is, of course, absurd to state that both of these are present in the patient at the same time.

A good many physicians seem to think that their affidavit is not complete unless they assign a cause for the mental disorder. Perhaps it would be fair to state that they show this misconception more commonly in the history of the case, a non-legal paper which is supposed to accompany the patient and in the preparation of which the physician is supposed to assist. The idea is quite prevalent among some that syphilis is a much commoner cause than can actually be demonstrated. Some seem to think that if a person is insane, he necessarily must have had syphilis and, therefore, this is mentioned in the history or in the affidavit. As a matter of fact, whether this is true in any particular case or not, it really has very little to do with the main task of passing upon the patient's sanity. Often this is mentioned when the history and study of the case afterward give no basis for it. It ought to be self-evident that to put in writing, and especially under oath, the statement that the patient has had syphilis or that it is the opinion of the physician that he has had syphilis is, in case no basis can be found for it, an injustice to the patient and to his family. Furthermore, if the case came into court afterward, it might be very unpleasant for the physician. In these days, when the law of this State requires of the physician the disagreeable duty of reporting venereal diseases—that is, as I understand it, in their active stages—my suggestion is

that the word syphilis be left out of the affidavit entirely unless it seems absolutely necessary to use it. Another idea is that many cases of insanity are due to some head injury or other trauma. As a matter of fact, it is seldom that the causal relationship between trauma and mental disorder can be demonstrated. Certainly the history of having been struck on the head ten or twenty years before should not be given very much weight if the patient has only recently shown mental disorder, and if the physician lays stress on this, he is apt to neglect some other feature of the case which can be more easily determined.

The old idea that masturbation is a cause of insanity seems to be so thoroughly fixed in the minds of some people, even physicians, that this is often mentioned in the certificate. Frequently the physician seems to think that this must have been present because the patient is insane and therefore he mentions it as one of the data establishing the patient's insanity even when there is no basis for it in fact. How illogical this reasoning is ought to be self-evident and the mention of such a problematic cause serves no purpose. Various other indefinite causes are often brought up in the physicians' certificate and given prominence to the detriment of some really tangible facts. My suggestion is that it would be better to mention the possible causes in any particular case, if thought desirable, in the history, rather than in the legal commitment paper.

A good many examiners seem to think that their statement is incomplete without some suggestion as to treatment. When it is reflected that the legal document which we are considering simply has relation to the question whether or not the patient is insane and whether or not he should be deprived of his liberty, it should be evident that any suggestions as to treatment really have no bearing. As a matter of fact, after the patient has been regularly committed to a hospital for the insane, whether public or private, the general practitioner's authority in the case ceases until such time as he is returned to the community. It should be mentioned, however, that at any time the family physician of the patient who is committed desires to discuss the diagnosis, or suggest treatment, the Hospital Staff will always be glad to co-operate as far as possible. My point is, of course, that this co-operation has nothing to do with the process of commitment. Some physicians think it their duty to suggest in their affidavits anti-syphilitic treatment. For reasons mentioned above there is no point to this sug-

gestion. Occasionally the suggestions offered in this way are amusing. For example:

An idiot was committed some time ago and gave a history of having had a severe infection of the lower jaw, when a child, which resulted in practically complete ankylosis, so that his mouth could be opened less than one-half inch. It was very evident that he was an idiot. One of the examiners in his affidavit recommended that the tonsils be removed. I cannot understand how he could expect that the removal of his tonsils would start mental development in an idiot of adult years, and how this physician would have gone about getting out the tonsils through a mouth that could be opened less than one-half inch, he did not explain in the affidavit. This physician also advised a Wassermann test, a suggestion without point whatever, because in all up-to-date hospitals for the insane this is done as a routine.

It would seem that some physicians write out their affidavits before careful examination and before getting data carefully. It is important to determine and then to state clearly, and briefly, exactly what the patient says and does that make people regard him as mentally affected and why it is believed necessary to put him under restraint. You should, of course, talk with and observe your patient enough to see if he realizes where he is and what is going on about him, whether or not he can remember and whether or not he has imaginary ideas or sensations, how he feels, how he acts, whether or not he threatens any harm, etc. What the family or friends can tell you will often assist materially in this. Sometimes observations that are apparently negative are important. For example, the patient does not eat, or does not talk at all, or will not move from one position for hours at a time. In some cases the examination of the patient himself may be in a sense negative, but the information secured from friends and relatives is enough to indicate that the patient if left at liberty would be a menace to the community or to himself. In a case like this the proper procedure is to state what the relatives or friends say and then to label this information properly.

I do not believe that physicians wilfully make under oath untrue statements in these certificates, but as already mentioned, they sometimes present symptoms and other data which prove to be doubtful or incorrect. Such mistakes can be avoided by care in the examination and a proper appreciation of the question involved.

We hope to make some of the foregoing points clear with some examples.

In a case of defective mental development who had shown violent tendencies, one of the examining physicians gave the following affidavit:

"Personal examination and the testimony of father."

It is quite evident that, although this certificate was accepted by the Probate Judge, and therefore served its purpose, it does not comply with the law because it does not give in detail reasons why the patient is insane, nor why he should be committed. This case illustrates the fact that sometimes the layman's affidavit is more illuminating than the physician's. For here the father, in his petition asking for the commitment of his son, makes the following statement:

"He goes about from place to place and enters any house he comes to. On March 30, 1920, he stopped an automobile while driving along the highway and because the driver did not stop immediately, he took a club which he was carrying and broke the windshield and threatened bodily injury to the driver. He became so violent that the sheriff had to take him into custody."

Here we have some definite data stated in simple language. Occasionally an affidavit merely says "insane actions" or "insane stare," which of course means nothing more than the physician's belief that the patient is insane and does not comply with the requirements of the law as already mentioned. In a certain case with well-developed symptoms of dementia praecox and a history of decidedly irregular conduct, one of the physicians merely stated on his certificate "mania." If he used this term in the old sense, he simply meant, I suppose, "insanity," and gave no information whatever. If he used it in the modern psychiatric sense, it was incorrect because the patient certainly was not abnormally happy. If this case should come into court one can easily imagine how disagreeable the lawyers could make it for this physician.

In a certain case of general paralysis, one of the physicians made the statement:

"He has all symptoms of general paresis."

As there was no doubt about the diagnosis in this case, I do not criticize him for having mentioned it. It would have been better, of course, to have mentioned in detail some of these symptoms and to have stated why commitment was necessary. The other physician in this case, as a matter of fact, gave these reasons:

"Unable to care for self. Is not a safe person to be at large."

To state, as some of the examiners do, in writing, that they recommend treatment and care in a hospital for the insane, is a waste of ink; because, if they look at the printed form carefully, they will find that this is already there as follows: "I further certify that said.....is insane and a proper person for care and treatment in

a hospital for the insane, and that I form this opinion on the following grounds."

Here is a case where this statement is made:

"Is very much confused; cannot remember very well."

Here, again, it would have been better to have given more details. As a matter of fact, this case showed motor aphasia which might very properly have been mentioned, but perhaps we can excuse the examiner for not having detected it:

Take the following statement in another case:

"He drinks periodically; has ideas of persecution; believes that detectives are after him; threatened to kill his boy and then the detectives. Paranoia."

The criticism I offer in this statement is the diagnosis, which was made unnecessarily and was probably incorrect.

Consider the following statement:

"He entertains the thought of being persecuted by his friends and relatives; is morose and refuses to get out of the house. He seems to be troubled with paresis."

My criticism here is, again, that the physician unnecessarily made a diagnosis which is probably incorrect and which might possibly be very unjust to the patient and his family.

The following affidavit is a good one except for the use of the word "hallucination" where evidently "delusion" is meant.

"Without provocation attacked his father with a chair, causing a severe scalp wound, afterwards trying to choke him. Also has hallucination that physicians in G..... are trying to kill him. Refuses to talk and seems in a morbid condition. He has been very nervous and slightly unbalanced for the last four months till breakdown came today."

In a certain epileptic committed here, the examiner gave syphilis as the cause. Here again, a careful study shows but little evidence of it and it should have been omitted. If this case were a sharp paranoiac and he were afterward released, he might try to make trouble for the one who made this statement.

The following certificate serves, I think, the purpose very well, but the mistake is made of assigning a cause, in this case trauma:

"Upon examination I find him physically normal but mentally he is laboring under a delusion, thinking his wife and neighbors are doing him an injury, and he wants to dispose of his goods and do himself bodily harm. Some years ago he met with an accident and believe his spine is the cause of his trouble, but think a few weeks in a hospital where he could get rest, in mind and body, would straighten him out."

This case is probably general paralysis and the favorable prognosis offered by the

physician, and which there was no need of making in his affidavit, is probably incorrect.

The following are examples of satisfactory certificates in which the facts are given quite briefly although it would have been well in each case to have given more details especially in regard to the examination itself.

"He has an idea everybody is against him and wants to lick everybody. He imagines all lodges and secret orders are against him. I recommend an emergency order."

"Marked mental depression (melancholia) since December, 1919. Depression has steadily increased accompanied by a suicidal desire which culminated in his taking a large dose of strychnine on December 8th, 1920, for the purpose of ending his life."

Examples of longer statements in three different cases are as follows:

"He believes a sect known as the Pentecostal Workers have a controlling influence over him and he believes that they are active German propagandists and believes that they are using poison gas for the purpose of incapacitating young Americans of military age and that he believes that another German war is liable to break out at any time. Has noticed strangers that act 'very suspiciously' and that others seem to be on guard. When the weather is bright, says that he can see gas on his hands. He feels that he is under constant espionage."

"Patient has threatened his family with injury during the past week. He has thought that some person was trying to poison him. He believes his wife is untrue to him and is very jealous of his wife. He is very suspicious of all those about him and is afraid that they are trying to 'frame up' on him. I believe he should be in an institution for treatment for the insane."

"He tells me that he knows that his mind is not just right; that he does many strange and peculiar things that he knows to be peculiar at the time, but that he is compelled to do them; that at times his head feels very peculiar and unnatural and that he is 'dazed.' Some time ago he remained in bed for a full week and knew all the time that he was not sick and that he should get up, but did not. He says that at times circumstances and everything seem to be against him and that his best friends seem to be his enemies and he feels that he is being persecuted. This man is in a critical mental condition and should be sent to a state hospital for treatment at once."

The last sentence in each of the last two statements is of course not necessary.

Some years ago, I knew in another state a physician who had occasion to write out a good many of these statements. They were usually quite lengthy and those who read them often commented upon their literary value. Now, of course, literary excellence beyond simple straightforward English is not an essential feature in these physicians' statements, but the law asks and the patient has a right to expect a careful examination. Then, if you are reasonably sure that the

person whom you have examined is insane and requires commitment, the making out of the necessary statement is really a simple matter. I will mention again that at times your only positive data are supplied by persons other than the patient and then you should label your data accordingly. To many of you this matter may not seem to be important, and it is true that trouble seldom comes from a carelessly made out affidavit. Some of the points I have brought out are to some extent, I admit, personal opinions of mine, and it is true that in the state hospitals objections are seldom made to any certificate which the Judge of Probate accepts.

I would summarize my suggestions as follows: Talk with the relatives or friends and then talk with and observe the patient enough to satisfy yourself that commitment is necessary, or desirable. State your observations in simple language, avoiding technical terms unless you are sure you understand them, and if you use them it is better to explain your observations in some detail. Do not make a definite diagnosis unless you are reasonably sure of it, as this is unnecessary. Any suggestions as to treatment or cause have no real place in the affidavit, but if you so desire, you may make such suggestions in the history, which is a non-legal document.

MEDICAL HISTORY IN THE UPPER PENINSULA

T. A. FELCH, M. D.
ISHPEMING, MICH.

The history of medicine in the Upper Peninsula is not a long one as time goes, but it has been enriched by one or two events of unusual importance. It is to be regretted that there is so little in the writings of the early explorers of this region concerning the accidents and diseases they encountered. Probably with most exploring parties there was no one capable of making such records. Possibly with the missionaries there may have been medical men but we have no records of that being the case. We may assume that these missionaries had as part of the preparation for their work some slight training in what might be called first aid, and also that their knowledge of the use of herbs as household remedies in disease was fair and that their variety was largely increased and their scope widened from information gained from the Indians.

Certainly from what we know of the sufferings caused by fire and flood, accidents

and disease, witnessed by these men, the call upon anyone of them having the slightest knowledge of treatment must have been enormous and continuous and this practice must have developed in some the rare skill which entitles them to all praise.

Came the time when the different governments looked upon this land with a covetous eye. Naturally the first step to possession was the occupation of the land by soldiers and presumably those soldiers had a medical man in the company. Although we have no record of the career of such men who may have been in the French or English armies of occupation, the practice of medicine and surgery in rough places among the rough white men and the rougher Indians no doubt developed many a poorly equipped physician and surgeon into a man of great ability and infinite resources. All the knowledge thus gained was largely lost to the world through lack of means of propaganda.

In 1832 appeared at Fort Mackinac the one outstanding medical man of the then territory, Dr. William Beaumont, a medical officer of the United States Army stationed shortly before this at St. Louis, Mo. Ordered to Fort Mackinac he went with an Indian guide in a canoe down the Mississippi up the Ohio and other rivers to the Great Lakes and thence to Mackinac. This is mentioned merely to show the hardihood of the man.

It is not necessary for me to relate in detail the scientific work done by Dr. Beaumont when the unusual opportunity presented itself in the person of the wounded Alexis St. Martin. That is a matter of record commented on and praised by all writers on medical and State histories. Some years ago the Upper Peninsula Medical Society started the movement to erect a monument within the old fort and near the house in which Dr. Beaumont lived. With the aid of the State Medical Society this monument was erected and dedicated. This photograph shows the monument as it stands. The inscription reads, "Near this spot Dr. William Beaumont, U. S. A., made those experiments upon Alexis St. Martin which brought fame to himself and honor to American Medicine. Erected by the Upper Peninsula and the Michigan State Medical Societies July 10, 1900."

Dr. Beaumont published the results of his work in two large volumes, now rare and valuable books. These observations of Dr. Beaumont stand as a sign post indicating the beginning of the long list of epoch-making medical discoveries which followed dur-

ing the rest of the nineteenth century and continuing up to the present. Truly the stimulus given the thoughts of medical investigators by Dr. Beaumont's work was a most potent cause of all this subsequent progress, and the fact that Dr. Beaumont pursued this work while a resident of this Upper Peninsula should be a matter of pride and congratulation to us all. Moreover he illustrates what has so often been observed in medical discoveries that Providence often seems to choose as the discoverers men who up to that time had not been especially prominent in medical work. But results are not attained by the mere element of chance. Back of it all was the thorough knowledge of the fundamentals of medicine and the ability to recognize the opportunity when presented, and taking infinite pains to correlate the theory with facts is what constitutes genius and that was a trait in Dr. Beaumont's character which demands and receives honor and esteem from every citizen of this great State.

In a private letter from Dr. Carl Johnson he says: "What Dr. William Beaumont had done for humanity you are all quite familiar with. It is an old, still vital, story how his experiments upon Alexis St. Martin furthered the knowledge of physiology. The monument at Mackinac Island will stand as a mute reminder that his brethren are not unmindful of his labors. In the history of the Upper Peninsula the medical profession plays no inconsiderable part. In every movement looking toward its development some member of our profession has been conspicuously and honorably represented. There has not been any expedition, undertaken by the United States Government, in which the physician and the surgeon has not been a constituent and prominent factor. Even in the early literature of this country, the medical profession contributed its mite, and in the dissemination of geological knowledge of this upper country, no one has given more generous and accurate information than one of our colleagues."

When, in 1820, General Cass undertook to explore these then unknown regions, he took with him on this expedition Dr. Alexander Wolcott, Indian Agent at Chicago. When six years later, the Governor again undertook another journey along the Lake Superior boundary he impressed Dr. T. Pitcher, Assistant Surgeon in the United States Army, stationed at the garrison located at the Sault de Saint Marie, into his service.

From the time that the United States garrison was first stationed at the Saulte in

the year 1822 down to this present day, there has not in all probability been a year that the garrison has been without the services of a physician. Indeed, the first physician in the Upper Peninsula to be regularly located was Dr. L. Foot, Assistant Surgeon in the United States Army.

And what shall I say of the work of Dr. Edwin James, Surgeon in the United States Army stationed at the Saulte in 1830, who seemed to have been possessed with remarkable linguistic talent.

He it was that edited "An account of Major Long's Expedition from Pittsburgh to the Rocky Mountains." He it was that prepared for the press, "A Narrative of the Captivity and Adventures of John Tanner," United States interpreter at the Saulte de Saint Marie, during thirty years residence among the Indians in the interior of North America. He also it was who, with the assistance of Rev. George Copway, a Chippewa Indian, translated certain portions of the New Testament into the Chippewa language.

As for the services of Dr. Douglass Houghton as a geologist in this Lake Superior country, nothing need be said. It is known by every schoolboy, but how many are familiar with the fact that Houghton was a physician and a surgeon before he was a geologist and that he skirted the south shore in 1832, commissioned by the Government to vaccinate the Indians, who were then suffering from a severe outbreak of small pox. The county that has been named after him was given in recognition of his labors as a geologist, but would it not be an act of justice as well as an honor to the profession to erect somewhere in the Houghton County a marker suitably inscribed, calling more particular attention to his services among the aborigines as a physician and a surgeon? May I respectfully submit this for the consideration of the copper country members?

Thus it will be seen that the doctors, no less than the traders and miners are pioneers, who with them shared the hardships incident to frontier conditions, and who willingly and gladly went about doing good."

Now comes the time when people begin to migrate to the Upper Peninsula and some permanent settlements were made first at Mackinac and then at the Sault. Gradually civilian physicians settled in these and other places and the medical wants of the population has ever since been well supplied.

After the discovery of iron ore and copper, companies were formed to work the

mines. These mines being remote from the then sparse settlements, the companies were compelled to subsidize physicians for the work, since the sick and injured must receive prompt attention. A plan much in vogue in Cornwall, from which place most of the skilled miners came, was adopted. In brief, a stipulated sum of money was deducted from each miners' monthly pay and given to the doctor for his service. This sum varied at different times according to the number of men employed and, since the mining business was notoriously unstable, the doctor was often either a prince or a pauper financially. This system was greatly modified as time went on. For instance in Ishpeming the hospital was built for the single men sick or injured. The married men and their families when sick or injured were supposed to be taken care of at their homes. The doctor furnished medical care and medicines to all, but the nursing which is now considered most important, then was only what the family and friends could make it. That you may know was extremely little. Probably at that time there was not a trained nurse, as we now use the term, in this whole country and very few in the country at large, for the training of men and women for nurses is of quite recent date. There were, however, in Ishpeming two women who had received training as midwives in Sweden, and who did very creditable work. The hospitals employed only male nurses as they had only male patients, men of no experience, usually, and no qualifications. Surely the case of the sick or injured man was, according to our present lights, not an enviable one. But the mortality statistics probably were not so bad, and the faith of the physician in the *Vis Medicatrix Naturae* was profound and comforting. Most of the mines supported a club, the funds of which were contributed equally by the miners and the corporation, and from which the injured drew a weekly amount. Sick benefit lodges and societies flourished like a green bay tree. This English system of giving medical care to the men, while it served its purpose well when the country was new, fell before the ideas evolved in the modern organization of Industries as being too paternalistic and too open to abuse.

It has been remarked that the moral character and the medical education of most of the young men who sought medical positions at the mines were of an unusually high order. They were men of brains and knew how to take advantage of the great

mass of clinical experience at their disposal and naturally, when after a few years of this work, they would move to one of the larger cities, they would at once take a high place in public esteem.

The diseases prevalent in the Upper Peninsula are those of the temperate zone, generally. Smallpox became epidemic at times and decimated the Indian tribes woefully and, as said before, in 1832 the Government sent Dr. Douglas Houghton here to vaccinate them. Smallpox has become endemic, and not a year passes but the disease is present in some of our towns. Due to neglect of vaccination, the fatalistic tendency of human nature and unwise propaganda, it probably will be with us always.

Typhoid fever, that scourge of every country, up to thirty years ago claimed its numerous victims yearly. As instance, the year 1889, when in the city of Ishpeming alone, a place of about 13,000 population, there were 410 cases of typhoid fever with a moderate mortality rate. During that year, the streets of the city were torn up in the process of laying the sewer system. The next year, the source of the municipal water supply was changed and from that time to this, there has been no typhoid epidemic; merely a few sporadic cases now and then, most of them brought in from outside. I have seen the statement made that when a community abolishes the source of a typhoid epidemic, there follows an increase of diphtheria and scarlet fever. That certainly was the case at this time in Ishpeming and these diseases have been endemic here ever since.

Probably we might escape epidemics of tropical diseases, but we must remember that at one time when cholera ravaged the United States, it reached as far north as Ste. St. Marie and claimed victims there.

The Michigan State Medical Society had been organized for many years and while it attained a high degree of scholastic efficiency, it did not have that influence in medical and public affairs which it should have had. Then the national medical consciousness became aroused. It was felt that the practice of medicine was an art, and as such should require of its followers a fair or a high grade of mental alertness developed by attendance at the high school, often continued through the university and then a long course in the medical school.

Immediately followed the organization of the county societies under the auspices of the State Society and all the counties of this Upper Peninsula were organized, and enjoy a vigorous existence.

It certainly was a remarkable happening which led Drs. Bell, Harrison, Hornbogen and others to seize the psychologic moment and gather many medical men from all over the Upper Peninsula to organize this Upper Peninsula Medical Society in 1896. The time was ripe and the enthusiasm at the first meeting was inspiring. They recognized the many handicaps which were attached to the practitioner in this region; the long distances, no automobiles; unwillingness to leave a location without a doctor within call; lack of opportunity to talk shop; an intense desire to use his social privileges, and the determination not to be medically a back number.

And so this society started on its career of usefulness and pleasure. Its fame spread over the state and many a medical man of more than local, even a national reputation felt honored to be its guest. And well he might, for he found here the medical mind as keen as his own; the literary mind well read and erudite; the poet and the raconteur, and he would depart thinking that here indeed was the royal entertainer and the prince of good fellows.

Wars may disrupt, dissensions may threaten, but the stout heart of its members will assure its continued existence; for this society as no other, supplies instruction and entertainment in a way that furnishes just the pabulum which medical men of the Upper Peninsula need, and we firmly believe that its growth and influence for good will be extended for many years.

SOME PRESENT DAY PROBLEMS CONFRONTING THE MEDICAL PROFESSION

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"In the Health of the People, Lies the
Wealth of the Nation." —Gladstone.

PREFACE

At no time in the history of Modern Medicine have more intricate problems confronted the profession than at the present. The situation has become so complex that one can hardly disassemble one from the other. Most of them can be solved, by we ourselves, if we yield to the spirit of the times and play "a give and take game."

The problems of most importance have to do with our altered relations with the public, which is not now on such intimate terms with us, as individuals, as was the case with our predecessors. You have all noted, I presume, the more frequent inclusion in our

medical journals in the past two or three years, of articles relating to State Health Insurance; the Relation of Medicine to Labor; the Social and Economic Responsibilities of the Medical Man, etc. They appear there for cogent reasons—the principal of which is: Changing times and views in all things.

Absorbed closely in its own work, the medical profession as a whole has fought shy of matters extraneous to its own sphere of usefulness and has disregarded especially, social economic work.

Probably no subject has given rise to as much acrimonious discussion and bitterness of feeling, as the efforts of medical bodies to restrict the practice of medicine to certain individuals, or, to certain classes. This problem, old as the profession itself, is today apparently no nearer permanent solution than it was fifty years ago.

PROBLEM 1—ADVERSE LEGISLATION

It must be quite evident to us all that the medical profession of this country is being singled out from all other liberal professions as the chief target of public assailment; this, expressed mostly through some recent acts of the legislative bodies of our states. The erratic mental tendencies of the times, may have veered many toward what may be rightfully, or wrongfully, classed as “socialistic views.” Those minds, once turned that way, inclines them to the most irrational ideas or desires. What form these may later take in their relation to our present and future welfare, depends somewhat upon the attitude we take to each other, and the effectiveness of our work in combating these nefarious forces. Just now, the trend of affairs in this class, is to pick holes, so to speak, in the social fabric of the classes they come closest in contact with, and those deficiencies, they assume, they know most about. If I read or consider aright, we are the next to be dealt with, not as individuals, but as a society of the whole. The best evidence that now offers is the action of the drugless cults. Take for instance, that most uncultured and uneducated group, the Chiropractors, as they represent in toto the entities of evil, not so much for ourselves, as for the poor gullible persons who are lead to believe in their theories, which are based largely upon the irrational ideas that every and all kinds of diseased conditions originate in the malfunction or disease of the cerebro-spinal system. These, they intimate and teach, are largely due to impingement of the vertebrae, their processes, or para vertebral tissues upon nerve trunks, hence the cure can only be accomplished

by adjustment or relief of pressure. Note then, this easy and simple, etiological conquest. Note also, this crude and unscientific attitude, which best serves their inferior thoughts and minds, and permits them to ignore biological defects and pathological changes in tissues. It is the preponents of this most fallacious cult that are at present, giving us our hardest fights in the legislative halls of our different states. Their vile underhanded methods did, as you all know, almost gain them a footing in our state, this year; which in effect would have placed them on a par with the regular medical profession.

Just here, I believe it is in order, to commend the officers and members of the Wayne County Medical Society, for first attracting our immediate attention to what was then impending in our State Senate, and to commend also, everybody who by direct or indirect effort, brought to a pause, the attempt mentioned; for, it was a great and glorious accomplishment to crowd back to the wall, on that occasion, these rascally forces, who, in the most insidious and unfair manner, so nearly got through a bill that, would have in effect, have disorganized legitimate medical practice in this state, and soon afterward in every other state.

No less credit is due the officers, members and friends of the New York State Medical Society, and its affiliated societies and associations, who first undertook on a large scale, investigation of all cults that had harped along similar or closely related chords.

In the case of Chiropractic, which above all others was most insistent in its demand to be licensed in New York State, it was found that there were at least three classes of Chiropractic Schools of Medicine. The best of which required but three six months courses, and the poorest of which furnished degrees after a single course of six months. To the latter could be admitted most any one who could pay the price. Their teaching staffs and colleges, adjudged by all fair standards, could hardly be rated at all, so inferior were they found to be. These facts, when published, veered public opinion against them, but the fight is still on. The most disconcerted set now is the chiropractic.

Have dwelt to undesired length on this single topic, only because it has relation to what shall be dealt with next, which perhaps is still greater problem. The debation of the first may have aroused in your minds, as it has in mine, the same thought, “How in creation are we to counteract such

malign forces, and safeguard our own interests?" Each of us have vague notions of how this may be accomplished.

Is it not the lack of development of methods, countenanced by the laity, which shall in the end counteract these vicious tendencies?

No one of us but will frankly admit that we are creatures of circumstance over which we have no controlling influence. Perhaps not put forth in these imprecise words, but in inferential terms that mean nothing—we charge the conditions cited to bad politics and other extraneous influences, all instrumental in bringing us to the precarious position we find ourselves in now. True, these may rate as immediate causes, but the remote ones are, if my deductions are correct:

PROBLEM 2—OUR INDIFFERENT ATTITUDE, AS A PROFESSION, TOWARD THE PUBLIC MIND AND GOOD WILL

True, we have lent our assistance in every conceivable way toward improving the status of mankind, by urgement of good sanitation, capable health departments for our cities and communities; greater and better care of those affected and those exposed to contagious and infectious diseases. Better hospitals, with more efficient and adequate care therein. A better standard of medical education than was ever dreamed of twenty or more years ago. In public health work, our united efforts have carried us to a point where everyone gives approval and help. Federal, state and municipal laboratories have been founded nearly everywhere.

Through the intercessions and pleadings of the legitimate medical men and women of this country—not always as bodies, but frequently as individuals—great research institutions have been founded by those of larger means. We are intensely proud of these achievements and others, and praise those that assisted directly or indirectly. But, here, we are brought to a pause. Not in our efforts to go farther, but to depict to the laity of the country, in simple, comprehensive terms of speech, our main reasons for pushing forward these modern projects, which are aimed only toward the end that they shall, one and all, benefit mankind, here and everywhere.

Can you or will you, catch the suggestion from these statements that our main fault or failure, lies chiefly in our neglect to advertise or announce, in a way that will reach all, the actual reasons why we are actuated to the extent we are, in the cultivation and establishment of better facilities with which to fight poor health, tendencies

to poor health; to combat disease, those conditions that predispose to disease, and make sure, sincere efforts to maintain in fair health and spirits, all persons from before their birth to the very end of their lives. A consistent, well tempered answer is, I realize, quite difficult to formulate. Notwithstanding this, the attempt should be made and, in some tangible way, the substance of this idea and all that it implies, be imparted to the people—in an understandable manner. Religious institutions, fraternal orders, banks, and churches of most denominations now resort to and utilize advertising space in the newspapers and magazines, or, even on billboards. So, why should we not follow suit? Our solemn duty is now to pull ourselves away from old fixed customs and traditions; evolve and work out a definite plan of announcing to the world the things the profession of medicine has accomplished in the interest of mankind in the last few decades. When the public assimilates these facts, we shall then enjoy the same confidence and regard that was bestowed upon our predecessors in medicine and its allied lines.

Consider if you will, what is the second remote cause for our retrogression in public favor as it is noted by the reader. Initiate it again by another query, addressed to ourselves, "Are we not bound up too tightly to the medical lore and ethics of ancient times, when medicine and its allied sciences posed in the guise of all medieval creations and were enwrapped by the superstitions of those periods?" It is no haphazard guess to believe that most of us feel that we are, and that more freedom is desired from those codes, forms and restrictions. Why then should we not refuse to submit to them and break away to a sensible degree, from those out-of-date formalities and personal regulations. Am conscious that the public expects this of us, and will approve and commend the change as in keeping with modern thought and times. These same thoughts doubtlessly have prevailed in your minds, as well as mine, so let us then evolve action of a dignified and proper character that shall, in effect, cast off these bonds that mitigate against our present good and welfare as a profession. Trust that, by these expressions of thought and opinion, I am not to be branded as radical.

Will omit from these discussions reference to the less material subjects that infringe as problems of today. Such as the "Harrison" and "Volstead Acts." Likewise, Health Insurance as an entity, for your minds are all satiated by them. Shall

however, request your further indulgence on one other subject, and shall then end. This alludes to State Medicine, because of its importance, but will treat it in the most meagre way, because of its endless questions of good and bad.

STATE MEDICINE

As an additional problem. The socialistic trend of the times is bringing us nearer and nearer to the point where we may have to combat the forces that at present are putting this to an issue. We, ourselves, are the only visible opponents to this radical move, which has to a great degree, degraded the medical profession of Europe. The present chaotic times will favor its foundation. The millions of unemployed, now in our country, shall require medical attention and hospital care during the period of unemployment and destitution. Greedy politicians and others, shall see in this situation the opportunity to put state medicine to the test. If this be inevitable, which many of our profession believe shall be the case, what then shall we do to shape its character? Our future destiny as a profession will be in urgent danger. The questions that will then arise, will be of such an extraordinary character that it behooves us even now to contemplate State Medicine as a reality. General plans of a definite nature should be made at once, to counteract as many of the evils as possible.

We as medical bodies should not disintegrate in that event, but try as best we can to strengthen our positions, so that no plan of practice can be made feasible without our close co-operation. If decently and well carried out, we shall have the force of public opinion to back us.

State Medicine is too abstruse a subject to be debated in full at this time. It is mentioned only because it presents in all its phases one of the greatest of all problems, and a recognition of this fact is now in order.

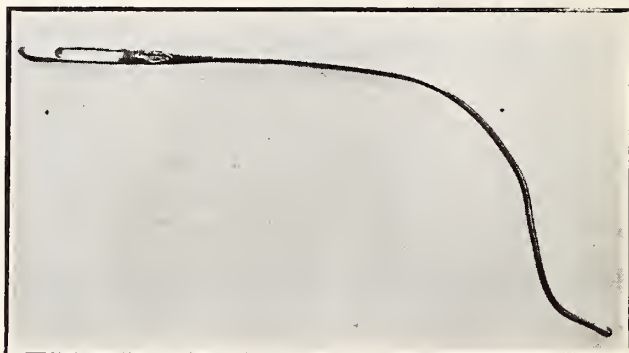
Presidents address, the Upper Peninsula Medical Society's 25th annual meeting, Marquette, Mich., August 1921.

WITTMACK'S VIEWS CONCERNING THE NORMAL AND PATHOLOGIC PNEUMATIZATION OF THE TEMPORAL BONE

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Wittmaack of Jena began about fifteen years ago to collect material concerning the development of cholesteatoma. His findings did not correspond with his expectations. He became

convinced that his investigations could lead to a satisfactory result only when they were undertaken on a broader basis. He found that there existed a relation between the behavior of the mucosa of the middle ear and the development of the pneumatic system of the middle ear, especially of the mastoid process. This relation had not been considered heretofore satisfactorily, or, not at all. This led to another step. Wittmaack found himself obliged to examine into the existing views concerning the normal pneumatization. Wittmaack arrived at conclusions which differed from those held at the time, and established a firm foundation for all further investigations and observations in regard to pathologically changed temporal bones. A greater part of the anatomical changes which underlie the chronic suppurations do not depend directly upon them, but they are appearances of changes of the mucosa which occurred much earlier and which are



connected with disturbances of the process of pneumatization. Wittmaack based his deductions on about three hundred temporal bones, which were cut in series for microscopic investigation. They were partly taken from the cadaver without clinical observation, partly from cases which had been observed clinically. A number of such histories are given. The guiding motive of Wittmaack's whole work is new. The unexpected rich findings which Wittmaack obtained in following up the correlation between the character of the mucosa and pneumatization on the one hand, and the disease processes of the middle ear mucosa, on the other, have brought it about that the studies broadened out into an almost complete working out of the normal pathological anatomy of the mucous membrane of the middle ear.

Wittmaack, page 3. It has been observed that before birth (Ashoff), and in the new born, and in children, during the first weeks and months of life, very frequently, inflammatory changes of the mucous membrane take place so that in comparatively few cases which are examined post mortem, an absolutely normal condition of the mucous membrane of the middle ear can be established. Luckily we are helped by investigations in animals. The newborn rabbit corresponds to a 6 to 7 months old human foetus.

Wittmaack arrives at the following conclusions:

1. Normally, the development of the pneumatic system of the temporal bone takes place with greater regularity than has been supposed heretofore.

2. The fundamental initial lay (Anlage) of the single air spaces follows typical histological changes which repeat themselves according to a certain plan.

3. If the development of the mastoid process is not interfered with, it shows a spongy structure only until to the end of the first or beginning of the second year (first period of development) a mixed spongy pneumatic structure until about the fifth year (second period of development), and later a regular complete pneumatization (third period).

4. Under normal conditions the process of pneumatization never ceases entirely. Interstitially as well as peripherally single pneumatic cells are formed up to a very advanced age.

5. The normal structure of the mastoid process therefore is characterized by pronounced pneumatization (not by sclerosis).

6. The individual variations in the development of the pneumatic system in later life (after the 5th year) can be recognized only in the structure single peripheral extension of the pneumatic system, but not in the structure of the mastoid process.

(Page 34.) All temporal bones which exhibit marked differences from the normal type, show signs of a past pathologic process. These changes are principally, if not entirely, brought about by changes of the mucous membrane of the middle ear. The changes in the character of the mucous membrane are mainly caused by inflammatory processes. These changes are so frequently found in autopsies of children during the first year of life that this condition has been considered physiologic and that one spoke of "physiologic suppurations." Solowzow found it in over 90 per cent of all post mortems.

There are two types of anatomical changes (Goerke, Rietschel):

1. A quietly starting and quietly proceeding type.

2. An acutely starting and quickly disappearing type. The quiet form is characterized by plastic organization, the acute by purely exudative and infiltration processes (Goerke). The first form shows high hyperplastic, the second, "atrophic fibrous changes." The first form in its pure type is clinically without symptoms. (Page 37.) The otitis media neonatorum is originally not an infectious process, but practically a foreign body suppuration, because, as Ashoff has shown, it depends upon the aspiration of amniotic fluid, vernix, and meconium into the Eustachian tube and tympanic cavity.

THE TOTAL ARREST OF PNEUMATIZATION BY HYPERPLASTIC MUCOUS MEMBRANE

There can be no doubt that also in later life hyperplastic changes of the mucous membrane occur with continuous absence of clinical symptoms. The mucous membrane in these cases of individuals 1½, 6 and 60 years old, shows a pronounced hyperplastic character: numerous cystic cavities are present, the layer of ciliated epithelium covers wide areas of the middle ear cavities, and here and there we find tissue bridges and tissue extensions of the same lay of tissue as the subepithelial tissue shows. If we find such occurrences in later life we must refer the impetus of this development to the nursing age, because the development of the hyperplasia is dependent upon the lay of the mucous membrane of the middle ear, such as is normally encountered only in the first period of development; furthermore, because, at this time, the development of such changes is exceedingly frequently observed and, then, because it cannot be found that the development of these changes from normal mucous membrane can occur in later life.

(Page 59.) The completely compact mastoid process furnishes the characteristic picture of a complete arrest of pneumatization. Heretofore it has been supposed that this appearance was secondary, and depended upon a chronic middle ear suppuration by which a pneumatic process was changed into a sclerotic process. According to Wittmaack the sclerosis is caused by a total arrest of the pneumatization, based on the changes of the nature of the mucous membrane of the middle ear during the first months of life.

(Page 61.) The mucous membrane continues to have its high subepithelial cushion, it even becomes higher, and this high layer furnishes an opposing wall to the sinking in of the epithelium into the narrow spaces which are prepared for a pneumatization. Thus the tissue is replaced by newly formed bone. The periosteum adjacent to the dura and the outer layer of the periosteum participate in these changes, so that the whole mastoid process can be changed into an almost complete sclerosed mass.

(Page 69.) Changes do not need to occur before or immediately after birth, but also during the first months of life. Sterile particles may find their way into the middle ear during vomiting. In partially sclerosed mastoids the process is not different in principle only different in degree. (See Page 96.)

(Page 101.) Besides the quiet latent processes, we have acute inflammatory processes caused by microbes, causing an exudative inflammation, hyperemia and round cell infiltration, resulting in fibrous cicatricial change of the subepithelial tissue layers. The pneumatization is considerably influenced by fibrous shrinking of the mucous membrane.

(Page 124.) Mouret (1913) is still of the opinion that the structure of the mastoid represents an individual peculiarity. Yet he claims that the sclerosis of the mastoid process cannot be a consequence of a chronic middle ear suppuration, but that it is a predisposing factor. (Cheate, 1912, International Otological Congress, recognizes a diploetic infantile type as a factor in producing chronic middle ear discharge, and that the density is not a result.—E. A.)

(Page 137.) Wittmaack found pronounced protrusion of the lateral sinus only in complete arrest of pneumatization. He comes to the following conclusions

1. Without doubt there exist certain relations between pathologic pneumatization and certain anomalies of the drum membrane, (dullness, cloudiness, atrophy, scars, etc.).

2. These changes of the drum are not entirely constant appearances of pathologic pneumatization.

3. In entirely normally pneumatized temporal bones we find only the constant ligaments (lig mallei anterior, lateralis and superior). Pathologic pneumatization is accompanied by accessory folds.

4. Protrusion of the lateral to sinus is found only in pathologic pneumatization, the more pronounced degrees only in the gravest forms. The development is also dependent upon the structure of the mastoid process.

5. Also the continuance resp. the unusual width of the fissures is a symptom of pathologic pneumatization.

(Page 142.) Almost all more serious suppurative processes of the mucous membrane of the middle ear (with the exception of mucosusotitis) were observed in bones with a more or less pro-

nounced hyperplastic mucous membrane and corresponding changes of the pneumatic system.

(Page 143.) It has been known for a long time that as a rule in chronic middle ear suppuration a sclerosed mastoid process is found, either without any cells or with few cells. Hyperplastic change of the mucous membrane and sclerosis of the mastoid process, do not follow a chronic middle ear suppuration. The subsequent sclerosis of the mastoid process on account of arrest of pneumatization may allow the development of a chronic middle ear suppuration. If such an anatomical foundation for the development of the chronic middle ear is not present, there do not occur infectious suppuration processes if the anatomical predisposition is missing, or if such a process develops, it takes an absolutely different course. It does not develop into a chronic middle ear suppuration, but it heals or is complicated by mastoiditis, with its secondary consequences. A compact mastoid with its typical accompanying features (adhesions, tissue-net-formation, cystic, spaces and detachments by strictures) are without doubt the common anatomic foundations for all forms of chronic middle ear suppuration.

(Page 162.) Wittmaack has not seen any choleostoma suppurations in which he could not very plainly see the anatomical foundation of the mucous membrane and the resulting changes (formations of organization tissue, cystic detachments, disturbances in pneumatization, etc.) as it is found in the latent hyperplastic otitis of nursing infants. We are not justified at present to assume, that the same changes occur after formation of choleostoma. The high subepithelial tissue pillow of the hyperplastic mucous membrane which is found as anatomical basis in the development of the choleostoma after necrotizing otitis and which, for the time being, continues to exist after growing over of the squamous epithelium, has, without doubt, the inclination to extend circularly and peripherically under arrosion of the adjacent bone spaces, so long as the development of the mastoid has not yet been concluded.

(Page 168.) The choleostoma suppurations with a perforation in Shrapnell's membrane develop slowly. Hartmann has called attention to the tissue bridge which separates the recessus and antrum space from the tympanic cavity. As soon as such a separation takes place, important changes occur as everywhere when the lumina of or pneumatic cells are closed against the air. A cystic change takes place. The air pressure sinks. When there are spaces of less resistance, they are pressed into the cavity and bulged in. This applies to the Shrapnell's membrane. But an atrophic inundation of the Shrapnell's membrane resp. a perforation does not lead to a choleostoma *per se*. A progressive immigration of squamous cell epithelium is dependent upon a hyperplastic mucous membrane which is rich in blood vessels.

(Page 206.) We must always be conscious when clinically judging about the various forms of chronic middle ear suppuration, that their existence is due to changes of the character of the mucous membrane which change dates from childhood. Besides the various pictures of the drum membrane in chronic middle ear suppuration, one may consider the formation of polyps. Their basis are mostly detached hyperplastic mucous membrane pillows or tissue balls consisting of organization tissue, which have grown into the lumen of the middle ear cavities. Sometimes it is only a prolapse of organization nodules. In

spite of the correct treatment of an acute otitis media a tubo-tympanic otitis may become chronic. The reason is the anatomical disposition in the form of a pronounced hyperplasia of the mucous membrane and secondly the obdurate processes of the upper respiratory tract. The most efficacious prophylaxis would be the prevention of latent otitides of nursing infants.

(Page 214.) Acute middle ear suppurations:

The grave form of acute otitis media are principally found in temporal bones, which plainly show anatomic changes in their mucous membrane and corresponding deviations in the structure and extent of their pneumatic cell system. Whereas the chronic suppurations develop when the highest degrees of hyperplasia of the mucous membrane are present, we find the acute middle ear inflammations principally in the lighter forms and those of average severity. In a general way and not speaking of the difference in virulence, we may say that the disposition for the development of inflammation of the middle ear mucosa originating in the tube, and its tendency toward protraction resp. chronicity stand in direct proportion to the height of the mucosa hyperplasia and the degree of arrest of pneumatization, whereas the gravity of the course and inclination toward mastoiditis stand in reverse relation.

(Page 223.) If a retrotympanic otitis turns into a mastoiditis we find large pusfoci and granulation tissue, which make a spontaneous cure impossible. The bone tissue is arroded thereby. Therefore we see that mastoiditis develops in consequence of an exudative infiltrative process. The bone under the mucous membrane is lacunarily arroded. Thus the cavities loose their separating trabeculae. If one of these cells has remained free from inflammation, the inflammation migrates in the deepest layers of the subepithelial tissue and causes a more extended process. Sometimes the process is exclusively resp. preponderatingly located in an end cell. The infection takes place by way of an air channel, which leads from the posterior portion of the tympanic cavity into the end cell. The subepithelial tissue extension passes immediately behind the facial nerve (Page 227) and it can even surround it. Most surgical injuries to the facial are caused by the fact that this tissue extension is diseased and that, in curreating same, the immediately adjacent facial nerve is injured. Therefore this dangerous recesses leading to the facial nerve must be recognized. The direction of this channel is the same as the antrum and the depth corresponds to the posterior lower pole of the antrum. In a large mastoid process with many cells, when this recesses is extraordinarily wide, it may be taken as an opening leading into the antrum whereas the real opening of the antrum is about one centimeter above this recess.

(Page 230.) The severest forms of fibrous transformation of the mucosa pillow which follow severe acute inflammatory process form a natural protection against another infection. Whereas a high layer of epithelium, in pronounced hyperplasia, furnishes a strongly mucous component and a more flat epithelium furnishes a more thickly fluid and supplicative quality, we find that in fibrous transformation the fluid is continually thin and serous. There is not a good anatomical basis for a more intensive formation of round and pus cells. The mucosus-otitis forms an exception, because the mucous component of the secretion is created by microbes. The thinner the mucosa, the less rich in blood is the subepithelial tissue and the greater the air content of the single

cells, and the clearer will the outlines of the cells appear in the Roentgen picture.

Wittmaack lays great stress on the Roentgen picture, not only concerning the prognosis, but also concerning the advisability of surgical interference.

2. The Necrotizing Acute Middle Ear Inflammation.

Wittmaack comes to the conclusion that the anatomical basis in form of a hyperplasia after latent otitis of nursing infants furnishes a particular predisposition for the occurrence and the grave necrotizing course of otitis in scarlet fever.

C. Tubercular and luetic middle ear inflammations.

Nine temporal bones showed tubercular changes and none presented a normal or approximately normal pneumatization. In clinical cases the Roentgen picture revealed the same. The individual disposition plays a part. In one case of lues the specimen showed the development of the disease on the basis of pronounced hyperplasia.

RELATIONS OF PATHOLOGIC PNEUMATIZATION TO ENDOCRANIAL COMPLICATIONS.

a. Propagation through contact infection. Wittmaack says that he has nothing new to offer.

b. Propagation along proformed vessel routes.

At present one considers the propagation along the normally anatomic vessel routes, bone channels or bone defects. This can take place as favorable spots are considered the normal spots where the nerves and larger vessels penetrate the temporal bone resp. the fissures. In preparing the bone for pneumatization the Haver's spaces with the vessel sprouts emanating from the dura resp. from the floor of the tympanic cavity, play a part during the growth of the bone by apposition. Therefore we see that also in the normal course of development a transitory condition is found in which the vessels sprouts emanating from the dura, branch out in the loose subepithelial tissue of a developing pneumatic cell, e. g., in the recessus or in the roof of the tympanum so that, hereby, a direct communication of the duraperiosteum with mucosa of the middle ear is created.

Wittmaack finds herein the explanation for the comparatively frequent cases of purulent meningitis in the nursing infants in middle ear inflammations, without signs of a contact infection. During the further development these vessels obliterate. There are three regions where larger vessels connect the dura and the middle ear. First, at the border of tegmen antri and tegmen tympani in the prolongation of the channel for the petrosal nerve in front of the convexity of the upper vertical semicircular canal. Secondly, on the posterior plane of the pyramid between the upper edge of the pyramid and the convexity of the posterior vertical canal i. e. above and somewhat laterally from the opening of the aqueductus vestibuli separated from it by the convexity of the posterior vertical canal, and, thirdly, on the floor of the tympanic cavity. In pathological pneumatization there exists, frequently, an outspoken continuance of these vessels connections between the subepithelial tissue pillow and the duraperiosteum, because these high hyperplastic layers require blood vessels. These are abnormal anatomical conditions.

Wittmaack thinks that these pathways must be considered more frequently, than the fissures, or normal anatomical pathways where the nerves penetrate.

1. Propagation through the tegmen tympani (Fig. 99-103). The vessel route through the tegmen tympani or antri must transmit inflammatory processes through the dura, either to the meninges or to the adjacent part of the cerebrum, resulting in meningitis or brain abscess resp. encephalitis.

(a) Meningitis.

We observe serous meningitis, meningo-encephalitis and circumscribed meningitis. In severe infection a fatal suppurative meningitis may develop from an exudative meningitis. In pure vesselroute infection, the clinical and anatomical signs of a mastoiditis can be absent, namely: deep infiltration of the mucosa and arrosion of the bone (Fig. 101).

(b) Abscess of the brain.

The surprisingly constant location of these abscesses would correspond to the typical localization of these vessels. Wittmaack could not examine these conditions anatomically, so far.

2. Propagation through the posterior surface of the pyramid. There are two ways. The infection is carried either by way of the dura to the meninges, or along the dura fold which forms the wall of the lateral sinus.

(a) Meningitis.

(b) Septicopyemia.

3. Propagation through the floor of the tympanic cavity (osteophlebitispyemia; bulbusthrombosis). The fibrous tissue which fills the fissures, which are present in early life, is not so well disposed to accept and propagate the inflammation as the loose and tender perivascular tissue of vessel routes, which have been described, and which tissue is connected with the subepithelial mucosa. The propagation by way of the vessel routes would explain the comparatively frequent coincidence of two entirely different complications, e. g., a complication in one cranial fossa and another in another cranial fossa, independent of the first. Just as the hyperplasia of the mucosa and the change of the epithelium connected therewith (high ciliated resp. cylindric or cubic epithelium) is not conducive to a contact infection, just hereby will it frequently favor the transmittance by way of the vessel route, because we must consider continuance of abnormally wide vessel connections between dura and mucosa, the more, the stronger the hyperplasia of the mucosa and the higher, therefore, the epithelial layer (page 267). The comparatively mild clinical symptoms on the part of the ear make a fatal complication especially tragic. It is not correct to accuse a retention of secretion, or a neglected paracentesis. Neither is it correct to accuse a so-called wrong treatment for the development of a chronic middle ear suppuration from an apparent acute suppuration. We are not justified to repudiate organic changes in dura or meninges, even if the clinical symptoms on the part of the ear are slight.

Wittmaack accepts also an osteophlebitis pyemia because undoubtedly microbes may enter the blood stream, within the, at times, enormously extended and thin walled vessel plexus in the subepithelial mucosa pillow and within the osseous spaces, filled with the same. The clinical course of these cases differs from the cases with an obliterating thrombus by contact infection, by absence of metastases.

THE RELATION TO TREATMENT

Nowadays the development of grave or fatal complications is always considered following the neglect to interfere surgically. This view is only

correct in cases of bone destruction, i. e., in mastoiditis, in acute processes and in cholesteatomata suppurations in chronic middle ear suppurations, and only when we have to do with contact infection. In the especially tragic and surprising cases after a comparatively slight acute otitis a prophylactic removal of the focus of infection in the middle ear is mostly not taken into consideration, because not the slightest indication for operation is present before the symptoms of the complication appear. In these cases the prognosis is not good because the vessel connections carrying the infection cannot be removed in their entirety. Conditions in contact infection are much more favorable.

(Page 274.) Wittmaack observed that cases with developing complications through vessel route infection, may become worse after an operation, partly on account of the jars which disturb a circumscribed focus, and partly, because the reaction after the operation causes a flareup of the perivascular inflammation. Wittmaack avoids an operation as long as there is the possibility of a spontaneous cure. He operates only if other indications, symptoms of a mastoiditis, etc., are present, when the clinical symptoms become worse, when there is a suspicion of meningitis without mastoiditis, when the lumbar puncture gives a positive result. Particularly the special cases of meningitis, which luckily are rare, are according to Wittmaack, lost from the very start.

RELATION OF PATHOLOGIC PNEUMATIZATION TO MIDDLE EAR DEAFNESS

Wittmaack mentions the residues of acute and chronic suppurations, the tube-middle catarrhs with adhesive process and the otosclerosis.

A. Residues of chronic and acute middle ear suppurations.

Not infrequently good hearing is present in spite of large defects in the drum membrane, therefore other changes must cause deafness. They are diagonal adhesions and especially the more or less complete obstruction of the niche of the stapes by a hyperplastic tissue pillow. A retrograde process sets in in the form of apposition of bone. The stapes plate becomes fixed.

Wittmaack describes a case in which the hardness of hearing was caused by these conditions because the inner ear was normal. The whole median promontory wall showed boneplate formation, as accompanying symptom of a retrogressive process in an originally hyperplastic mucosa pillow. These changes like the filling of the niches of the stapes are symptoms of the gravest changes in the mucous membrane dating from earliest childhood. In higher degrees of middle ear deafness as consequence of chronic suppuration a complete arrest of pneumatization of the mastoid process can be shown in the Roentgen picture. At times, permanent deafness may occur after acute otitis in cases of more pronounced mucosa hyperplasia, especially if in the region of the ossicles or especially in the niche of the oval window bridges of tissues have been formed.

TUBE MIDDLE EAR CATARRH AND ADHESIVE PROCESS

The hyperplastic mucosa reacts more easily by transudation. If a latent inflammatory process exists we find an exudate instead of transudate. If the tympanic ostium is occluded by inflammation or products of the middle ear mucosa, we must assume the existence of hyperplastic mucosa and arrest of pneumatization.

Wittmaack showed the existence of hyper-

plastic mucosa and latent inflammatory processes of the surface of the mucosa with formation of organization tissue, adhesions, cystic detachments, etc. We also find the characteristic picture of the mastoid structure. We have before us a process which doubtless is connected with latent inflammatory processes in the mucous membrane of the nursing age. A third form are the catarrhal conditions in atrophic changes of the mucous membrane. There we find either complete arrest of pneumatization or the picture of an atrophic fibrous mucous membrane change characterized by sharp distinction of the pneumatic region from the compact portion of the mastoid. The drum membrane shows mostly very plain atrophy in parts or in toto. These acute or subacute processes which show periodically improvement, may be influenced by therapeutic measures. Another step leads to the stationary processes in which the air douche, bougies and massage do not help. The anatomical basis remains the same: hyperplasia of the mucosa and arrest of pneumatization. We then see the development of a picture which is called adhesive process. Just like in residues of chronic suppurations the greatest disturbances are to be



expected when the stapes is fixed. The fixation of the hammer and anvil alone does not produce higher degrees of deafness.

If we consider that the same anatomical basis is necessary for the development for adhesive processes as for the chronic suppurations, we can easily understand, as Bezold has mentioned, that we find a cholesteatoma in one ear and an adhesive process in the other ear. So long as the mucous membrane saves its hyperplastic character with the tender vascular loose structure of the subepithelial tissue, there exists a greater inclination toward chronic middle ear suppurations, or toward acute otitis in less pronounced hyperplasia. As soon as a shrinking takes place in the subepithelial tissue, the anatomical predisposition for a cholesteatoma becomes more favorable by formation of a firm diagonal seclusion of the tubotympanic space from the antro-recessus space.

OTOSCLEROSIS

In a plain fibrous resp. atrophic change of the mucous membrane, Wittmaack has not seen otosclerosis foci. There seems to be no causative connection between otosclerosis and changes of

the mucous membrane. Considering that otosclerosis can occur with any form of structure of the mastoid process and considering that the adhesive process can only develop on the basis of a more pronounced hyperplasia with corresponding arrest of pneumatization, we may use this reasoning for differential diagnostic purposes. Whenever we have a well pneumatized mastoid process on the one hand, and on the other hand a pronounced interference of sound conduction which becomes continually worse, we have otosclerosis before us, provided that the process can not be influenced by catheter and bougie, and that the disturbance of hearing is not too slight, but of a medium degree.

CONCLUSIONS

"The establishment of distinct relations of the various disease processes to the abnormal development of the pneumatic system and their consequences has advanced our views of almost all middle ear diseases. The Roentgen picture permits us to recognize, during life, the various forms of pathologic pneumatization which is of practical clinical importance. Aural diagnosis has been advanced by establishment of the relation of the mastoid structure to the character of the mucosa. Wittmaack does not doubt that in cases of serious injuries of the temporal bone the prognosis of these fractures and especially the danger of infection must greatly depend upon the character of the mucosa resp. upon the presence of latent hyperplastic processes of inflammation.

Fractures of the base in normally pneumatized temporal bones with a mucosacovering, which comparatively little inclines toward inflammatory processes will without doubt give a better prognosis, and therefore can better be treated conservatively and expectantly, than temporal bones with pathological pneumatization, because the latter entail a far greater disposition toward inflammatory changes. This must be considered when deciding about surgical interference. Furthermore, in the whole pathology, one has succeeded only in the middle ear, to show the enormous influence which comparatively slight injuries appearing in the nursing child, and which are clinically, sometimes, entirely latent and unnoticed, can exercise upon the whole development of the middle ear and its disposition toward diseases in later life. Wittmaack thinks that he can assert, with all certainty, for the middle ear that the disposition toward disease processes is not primarily dependent upon general constitutional causes, but upon the anatomical structure of the mucosa and the condition of pneumatization intimately connected therewith. The middle

ear is a good object for establishing these relations, because it goes through a complicated process of development after birth in the lay of the pneumatic system. It may be that this consideration applies also to other organs, e. g., the mucosa of the respiratory tractus, the intestines, especially the appendix.

The investigations here brought forward, teach that a general prophylaxis must begin during birth and the care of the nursing child. A neglect at these times cannot be undone later. The co-operation of the gynecologist, pediatricist, and otologist opens new perspectives. The factors must be analyzed more exactly, especially in order to establish which occurrences during birth (premature breathing?), or which during the care of the nursing child (the act of vomiting?), carry irritating foreign bodies into the middle ear through the tube. If the middle ear is protected so that it develops absolutely normally, it is also protected in the safest manner against diseases in later life."

Wittmaack has enriched otology by a monumental contribution. Whether ultimately all his views will prevail or not, we cannot fail to admit that Wittmaack has fortified his position by numerous painstaking and thorough pathological investigations. A contradictory view, if of any scientific weight, must be supported by the same exemplary and acceptable work. As matters stand, at present, we are obliged to change many of our ideas on account of the herculean, magnificent and convincing contribution given to the world by such a recognized authority as Wittmaack.

DISCUSSION

DR. WENDEL, Detroit: I think the section would be glad if Dr. Amberg had taken the time I am to occupy and gone more deeply into this matter. I think we have all been impressed in our clinical experience by the wide variations we have seen on the operating table in the temporal bone. We perhaps look upon these as normal variations. If the theory of Wittmaack is true, the normal temporal bone develops along practically definite lines if not interfered with by pathological processes, then we will have to change our views. This may be brought to us as a purely scientific subject without practical application. However, as I say, we have been impressed with the wide variations we have found in operating on the temporal bone, such as a lateral sinus placed far forward, or small developed mastoid cavities, and we have perhaps looked on these as normal variations. Wittmaack attributes this to some pathologic process early in life of the patient, which has interfered with the normal pneumatization of the temporal bone. We could count with our fingers the men who have really done work worthy of mention along this line. Cheatle of London, about 1913, gave a report of investigation made on about 120 temporal bones normally developed along fairly regular lines.

We have attributed at least a few years ago, sclerosed mastoids as due to a chronic suppurative

process in the mastoid and middle ear, with the resulting change in the temporal bone to a sclerosed condition, while Wittmaack attributes this to failure of development; that is, a bone which was never pneumatized at all. Just what importance this work will have practically it is hard to say, but it at least emphasizes the importance of prevention of middle ear trouble in infancy and emphasizes the importance of prophylactic treatment in infancy. Also the feature that we are able to give a better prognosis and more accurate treatment in chronic ear suppuration if we know there has been a history of trouble in childhood with a sclerosed mastoid is important. I think the subject is worthy of general discussion. I am sure the section is indebted to Dr. Amberg for his careful presentation.

DR. WILSON: The practical value, as I visualize it, is this: a mastoid in which an infection occurs may be any one of the numerous types of modified development suggested. Suppose we have a mastoid in which infection occurs in which a considerable portion of the myelogenous tissue exists, and we recognize it by the presence of a red, marrow-like substance in the mastoid cavity. There are present more or less minute evidences of infection throughout the entire mastoid. We may make up our minds that these bones which permanently retain a large amount of bone marrow, are like the long bones, where in osteomyelitis, the infection extends for some distance. With a mastoid of this type, if an imperfect operation is done, if the mastoid is opened and a large amount of myelogenous tissue is left in any part of the mastoid cavity, we will have a case that will go very slowly to recovery; that will exhibit temperature and many other symptoms. Therefore it seems to me, if I understand this at all, one of the practical things is that a mastoid of that type, when we encounter it, should be thoroughly operated upon. Our operation should not stop short of an investigation which carries us beyond the boundaries of the ordinary mastoid.

There is no argument in favor of a poor view in aural surgery. An otitis media being manifest clinically more on one side than the other, and it is decided to do a mastoid operation, the nature of the mastoid is not known. If, when a clinical mastoid exists on one side and indefinite symptoms on the other, hardly sufficient to warrant operation, and we find a pneumatic mastoid and the vascular structures are not disturbed, then we may be satisfied by doing a single operation on only the one side; but if we find a mastoid which has a great deal of this soft, red myelogenous structure throughout, it may be wise to turn the child over and do it on the other side for the reason that we know that type of mastoid is bound to pick up retained infection and give us subsequent trouble.

DR. AMBERG, (closing): Tolstoi said that any man who understands his work can explain it so it will be understood by any peasant. I am not taking it on myself that I have delved into the mysteries of Wittmaack's work sufficiently to explain it in the manner I wish.

I will just show an instrument, a probe for the jugular bulb.

Although, according to Politzer (Textbook 1908, page 529) the location of the jugular bulb varies, and although its extension upward towards the semicircular canals and towards the inner meatus is not uniform, the probe which I present may be useful and may facilitate an operation on the bulb. It is bent in about the form of an S and imitates the course of the sigmoid sinus toward the bulb. The tip touches the anterior wall of the same. The specimen shows the probe in situ.

WHEN A HYSTERECTOMY IS PERFORMED WHEN SHALL WE, AND WHEN SHALL WE NOT REMOVE THE OVARIES?*

RICHARD R. SMITH, M. D., F. A. C. S.
GRAND RAPIDS, MICH.

One scarcely needs to present an argument to this audience in favor of the general principle of preserving the ovaries in pelvic surgery, nor of following this same principle even when the uterus is removed and menstruation and childbearing are no longer possible. Our experience with women who have had their ovaries removed during the period of their functional activity has impressed upon us all how necessary it is to be conservative and to make it a habit to retain them. Even so, when we come to apply this simple rule in performing a hysterectomy we find it sometimes by no means easy to do so and not always to the best advantage of the patient. It is my purpose in this present paper to discuss with you a number of the commoner situations in which this question arises.

Surgeons have now had a considerable experience with both the original procedure of practically always removing the ovaries in doing a hysterectomy, and with the more recent one of preserving them. From the former we have learned that some women suffer scarcely at all from such removal, that a large number suffer distressing symptoms for a shorter or longer period, and that a few have such severe symptoms as to make them invalids. From the latter procedure we have learned that the menopause symptoms can be avoided or deferred for several years and that when they do then occur they are more nearly like those of the natural climacteric and seldom severe. The uterus is removed primarily for certain diseases of that organ and occasionally for severe displacements; and secondarily, the uterus is removed for technical reasons or drainage for certain diseases of the appendages in which the possibilities of pregnancy have been sacrificed. The reasons are often combined. For the sake of brevity and clearness I shall deal only with the questions arising from the former, and I shall not discuss the indications for hysterectomy.

Now as to certain general considerations. First, that of age. In women who have passed the climacteric I have never been convinced that there is any reason for sav-

*Read at the Annual Meeting of the Michigan State Medical Society, May, 1921.

ing the ovaries and I am in the habit of removing them to prevent absolutely any further trouble from this source. Two reasons, however, prevail in determining their retention. We may retain them for reasons of sentiment on the part of the patient, and in vaginal hysterectomies it is technically easier and safer to leave them. Generally speaking, the younger the woman, the more anxious should one be to retain the ovarian secretion. In women who are at, or very near the climacteric, I believe we may be to a certain extent indifferent in the matter, but if the ovaries are normal it is better to save them. We should be conservative during the early forties, much more so during the thirties, and extremely so earlier than that. A real desire on the part of the patient to retain her ovaries should always have some little weight with us and a clear understanding in the matter before operation is most desirable aside from its legal considerations. Again we are influenced by the condition of the ovaries themselves in determining their disposal. Cystic ovaries do not require removal. I occasionally resect an ovary in which I find a graafian follicle or corpus luteum cyst of great size, but ordinarily cystic ovaries require no attention whatsoever and are best left alone. It goes without saying that true ovarian neoplasms unexpectedly encountered in doing a hysterectomy should be dealt with as though they were the primary indication for the operation. They almost always require the removal of the involved ovary and the removal of both if there is any question as to malignancy, granted, of course, that the case be operable.

Before speaking of the different factors that determine our procedure in the various diseases of the uterus for which we have elected its removal, certain other things may well be mentioned. The ovaries are retained, of course, only because of their internal secretion. How much active ovarian substance is necessary to prevent symptoms? In general terms, I believe a third of one ovary or even possibly less is well worth saving. The blood supply should be carefully guarded and gynecologists are now most particular about it. No ovarian tissue should be sacrificed without a good and sufficient reason.

FIBROIDS

It is seldom necessary to remove the ovaries in performing a hysterectomy for fibroids. The ovaries are occasionally large, oedematous, or much flattened from pressure. This constitutes, however, no reason for their removal. Ovaries that contain

hemorrhagic cysts sometimes present a rather difficult problem. Some of them represent adenomatous extensions from the uterus and should be removed. Those of this type in which adhesions have resulted about the ovary and in the cul-de-sac had best be out. If the opposite ovary is apparently free, in part or completely so, it may, I believe, be retained, sometimes after resection. These adenomatous invading growths, springing as they do from the uterus, vary considerably in their tendency to invade, sometimes continuing after the removal of the uterus and sometimes disappearing. We may only judge by conditions as we find them. Perhaps further experience will give us clearer indications for their disposal. It is not always easy technically to separate an ovary from the uterus and growth and maintain a satisfactory blood supply. Close inspection of the opposite ovary should then be made to determine whether it can be satisfactorily retained. Under such circumstances one may be sacrificed if an endeavor to retain both means a considerable loss of time, but rarely will it happen that both need be removed. Inflammatory adhesions and complications from chronic tubal diseases, whatever their origin, should be treated much as with hysterectomy for tubal diseases, a subject I shall deal with presently.

CARCINOMA

A hysterectomy for carcinoma of the uterus should mean, as a rule, the removal of both ovaries. Perhaps this is the only safe course. However, in comparatively young subjects with very early carcinoma of body or cervix, I believe it is debatable as to whether we may not with safety leave one ovary without increasing the danger of recurrence. This I believe may not be agreed to by many.

OTHER UTERINE CONDITIONS

When the uterus is removed for displacements or subinvolution or chronic infection of that organ, there is seldom any need of disturbing the ovaries and they should be left.

TUBAL INFECTIONS

The most difficult problems present themselves in dealing with tubal infections and their complications. We may not remove the uterus often, perhaps, when the tubes and pelvic peritoneum are the seat of a tuberculous infection, but when we elect to do so the condition of the ovaries themselves will determine their disposal. If the ovaries are free of any involvement or are simply flecked with tuberculous deposits, we have always believed in leaving them.

On the other hand, if either or both are the seat of abscesses, removal of the involved ovary or ovaries seems the safest course.

Far oftener, however, we are called upon to decide concerning the ovaries in chronic gonorrheal infections. We may conveniently divide them into three grades. Those in which one or both tubes are affected without any serious involvement of the ovaries beyond perhaps mild adhesions. The tubes and uterus may be removed, leaving such ovaries without fear of after results. Second, those in which the adhesions are dense, the ovaries indurated and cystic, and the loosening from their bed difficult. We should look the ground over carefully and try with gentleness to release each ovary from its surrounding adhesions. We may resect them at times leaving a little, at least, of one or both of them. Lastly, those cases in which both ovaries are so adherent and changed that it seems impossible to identify them clearly or remove them from their bed without destroying their blood supply or leaving parts of them behind. They are sometimes plastered up against the pelvic wall or bowel so firmly as to make an attempt rather dangerous. In such cases we make a prolonged effort to remove them entirely, but we are not so insistent upon this as to run the additional risk of injuring other structures and have frequently left parts of them rather than to do so.

The ovaries or parts of them left following a hysterectomy for inflammatory disease have not, in our experience, given trouble of a nature so serious as to demand another operation. Cysts will sometimes form, even of considerable size, and the patient will complain of discomfort perhaps for the first few months or a year, but after that the discomfort ceases and the results are good. I believe it far better that this discomfort should occasionally occur than that the woman should run the risk of having serious symptoms from an artificial menopause.

TUBERCULAR PERITONITIS*

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In tabulating my case histories for the past two years, I have found that out of one hundred and two consecutive laporotomies for various surgical abdominal conditions, six have been cases of tubercular peritonitis. It is my purpose in this short paper to give a brief history of each case followed by a

short resume of the general subject. The series is far too small to draw many definite conclusions, but may open up a subject for discussion by those whose experience has been greater than mine.

Case 1: Miss M., age 25, housewife. On November 18, 1919, acute onset of the cardinal subjective and objective signs of acute appendicitis, with an indefinite history of previous attacks over a three-year period. The family and past personal history were negative. Temp. 99.8, pulse 100 at 4 P. M. Vaginal examination negative. Blood count normal.

Diagnosis—Acute appendicitis. Appendectomy advised.

Operative findings—Elongated retrocaecal appendix. Surface covered with many millet-seed-sized tubercles. Peritoneum slightly thickened with a few tubercles present. No fluid. Many pelvic cob web-like adhesions. Fallopian tubes free from tubercles, and other abdominal viscera normal. Convalescence uninterrupted. Patient was well when last seen, Oct. 1, 1921.

N. B. No previous history of pleurisy.

Case 2: Master B., 8 years, schoolboy.

A satisfactory subjective history was impossible to obtain. As near as could be ascertained, patient had been sick about four months, during which time he had rapidly lost weight and appetite. There was abdominal pain and progressive abdominal enlargement following, up to the present state of complete prostration. Examination showed hygienic neglect, marked emaciation, general weakness, marked abdominal enlargement, dyspnoea, with fluid in both flanks. Throat and chest showed no apparent pathology. Patient had been under the care of a physician who had used intensive hygienic treatment with no result. Blood count 8000 leucocytes, 32% lymphocytes, 65% polymorphonuclears. Von Pirquet, double plus. Examination of some of the aspirated abdominal fluid showed it to be straw colored, with moderate numbers of lymphocytes present upon cytological examination. Laporotomy advised in spite of the very poor operative risk.

Operative findings: Two quarts of straw-colored fluid removed, peritoneum slightly thickened, no adhesions present, no focus found after a hasty search. Patient's condition became bad and further search was deferred. Abdomen closed without drainage. Patient died on the fifth day from exhaustion.

Case 3: Mr. L., age 25, laborer. First seen March 16, 1920. Family and past personal history negative. Previously healthy. Sudden onset of an acute, colicky, semi-constant, abdominal pain with associated constipation, and followed in two weeks by enlargement of the abdomen. No previous history of pleurisy. Temp. 100.2, pulse 100.

Examination: Well nourished, throat and chest negative, abdomen enlarged. Tympany in the center and dullness in the flanks. 8000 leucocytes, 30% lymphocytes, 65% polymorphonuclears. Lymphocytes present upon cytological examination of the aspirated fluid.

Diagnosis: Tubercular peritonitis. Previous hygienic treatment for two weeks, prior to entrance to the hospital and for two weeks prior to laporotomy as a failure.

Operative findings: Liberation of a large amount of fluid with some fibrin. Peritoneum markedly thickened and studded with tubercles. Intestines matted together with many dense ad-

*Read before the Genesee County Medical Society.

hesions. Abdomen closed without drainage. Advised intensive hygienic anti-tubercular treatment. Convalescence uninterrupted. Patient is at present in the navy.

Case 4: Mrs. T, age 30, housewife. First seen December 7, 1920. Family and past personal history negative. Present illness: Pain of a constant achy variety, present in the lumbar region, epigastrium, and lower right abdominal quadrant, with associated nausea and vomiting, vaginal bleeding and amenorrhea for the past two months and a half. Patient had had five previous miscarriages.

Examination abdominally showed pain and tenderness over the right lower quadrant. No masses felt. Vaginal examination showed a bilaterally lacerated cervix of normal consistency, uterus forward and enlarged. Blood count normal. Slight elevation of temperature, and increase in the pulse rate.

A diagnosis of extra-uterine pregnancy was made and operation advised.

Operative findings: Both Fallopian tubes showed the presence of many tubercles about the size of a cc pill. They were also small and very friable. A few cobweb-like adhesions were present. Uterus enlarged to the size of a two and one-half month's pregnancy. Peritoneum not thickened. Two weeks later the patient aborted, and has been perfectly well as far as I know ever since.

Case 5: Mrs. A, age 34 years, housewife. First seen October 27, 1920. Family history, one sister died from pulmonary tuberculosis. Personal history, negative. Patient complained of abdominal pain, backache; headache, leucorrhea, since birth of first child, 10 years ago, and loss of appetite, loss of weight, night sweats, productive cough, general weakness, all present during the past three months. The latter syndrome alarmed the patient and caused her to seek medical aid. Temperature 101, pulse 100 at first examination. Advised hospital for observation.

Abdominal examination showed presence of pain and tenderness in both lower quadrants. Vaginal examination, showed cystocele, rectocele, bilaterally lacerated cervix, tenderness in both adnexa. Patient's P. M. temperature while in hospital, ranged from 99.6 to 101.6. Chest examination showed presence of a moderately advanced pulmonary tuberculosis in the left apex. Tonsils were found to be deeply buried and septic. Blood count 7,200, L. 68, Ps. 20, Ls. Von Pirquet positive. A consultant advised tonsillectomy which was done Nov. 6, 1920, under local anaesthesia. Tonsils were found deeply buried, crypts filled with much foul smelling cheesy material. Patient discharged home, Nov. 11, 1920, and advised intensive hygienic anti-tubercular treatment.

The abdomen rapidly filled with fluid until the patient became very uncomfortable and dyspnoic. Paracentesis removed six quarts of straw-colored fluid, and was followed by improvement for 10 days prior to laparotomy under local anaesthesia Nov. 26, 1920.

Operative findings: Peritoneum much thickened and studded with many, small tubercles. Intestines matted together firmly with dense adhesions. Two quarts of straw-colored fluid evacuated from many pockets. Exploration impossible. Convalescence was slow but steady. At present the patient is doing her own work.

Case 6: J. P. age 13 years, Fairview school. First seen June 21, 1921. Family history unob-

tainable. Past personal history, unhygienic home surroundings. Tonsillectomy April 19, 1921.

Admitted to the surgical clinic complaining of presence of a tumor mass in the right upper abdominal quadrant. Examination revealed a mass about the size of an orange, apparently attached to the liver and the right costal margin. No tenderness, but slightly reddened, with infiltration of skin and some fluctuation.

A tentative diagnosis of granuloma of the rib was made. Massermann, negative. Von Pirquet positive. Aug. 1, 1921 mass still present, broken down and discharging from three sinuses. Chest negative. Sinus (lower) probed and found to extend to the rib margin. Operation advised following diagnosis of tubercular ribs.

Operation Aug. 22, 1921. Incision over the above described area obliterating the sinus openings. Ribs exposed, but with no pathology present. At the costal margin, however, in the lower part of the wound, a sinus large enough to admit the index finger leading into the peritoneal cavity was found. Exploration revealed presence of cobweb-like adhesions around the gall bladder, pylorus, duodenum, intestines, and post surface of the liver. Peritoneum was studded with tubercles and thickened to about one-eighth of an inch. The sinus was closed with plain catgut, the fascia overlapped with chronic catgut, and skin closed with silk worm. There was considerable discharge three weeks, when it finally cleared up and wound began to granulate. Healing was stimulated by applications of silver nitrate and exposure to concentrated electric rays from a 100 cp electric light, held six inches from the wound under a canopy. Patient has gained ten pounds in weight and looks better, wound has healed completely, and patient is back in school.

Most authorities concede that tubercular peritonitis is of two varieties, i. e., acute and chronic. The acute may or may not be associated with fluid, the former case being true of the miliary form. The chronic may be characterized by large growths which tend to caseate and ulcerate. The exudate is purulent or sero-purulent, and may be sacculated or localized. Or, it may be the chronic fibroid type, which may be subacute from the onset, or which may represent the final stage of the acute miliary, with many adhesions to the matted intestines, and fluid. The acute type may assimilate acute peritonitis, acute appendicitis, acute cholecystitis, intestinal obstruction, strangulated hernia, and other acute abdominal conditions, and is often diagnosed as such. Very often in the chronic forms with fluid, it is hard to differentiate from an ovarian cyst, but most of these patients have a little elevation of temperature in the afternoon or evening, or a subnormal temperature in the morning, and if a careful record of the patient's temperature has been taken throughout the period of the illness, the condition would probably be found at some time. The laboratory findings, together with the history, make an almost positive diagnosis in both the acute and the

chronic cases. You are well acquainted with the usual laboratory procedures at our disposal in this condition. They consist of cytological examination of the aspirated fluid, which shows frequently lymphocytes in varying numbers present and fibrin. Injection of this fluid into a guinea pig produces the disease there. The tuberculin test, and the VonPirquet, and finally the blood count, which shows a normal or decreased number of cells with an increase in the lymphocytes.

The presence of a distant focus of infection should be borne in mind, for example, the tonsils, prostate, epididymus, seminal vesicles, and the Fallopian tubes. We believe that the disease is secondary and frequently associated with chronic pulmonary tuberculosis, pleurisy, or pericarditis. The Germans contend that tuberculosis is primary in the gastro-intestinal tract. It occurs at all ages, but is most common in children and adults between the ages of 20 and 40 years. Some of the predisposing factors are cirrhosis of the liver, abdominal trauma, ovarian cysts, and in hernial sacs. I believe the disease to be more common than is commonly supposed, 6% in my small series.

The predominating symptoms are abdominal pain and tenderness, severe or mild, depending on whether acute or chronic, tympanites, in the acute cases being due to loss of tone in the intestines owing to inflammation, or in chronic cases with adhesions between the visceral and parietal layers. Fever may reach a high point in the acute cases, slight or subnormal in the chronic cases. Ascites is frequent in both forms.

The treatment of this condition has swayed from medical to surgical and back again many times, good results being obtained from both. The results from surgical treatment briefed in this paper have been good. All cases, particularly the acute, I believe should have the benefit of hygienic treatment for a period of from two to four months, and if this fails, or if there is an excessive amount of fluid formed which is of marked disturbance to the patient, the surgical treatment is indicated. However, operation is not always essential, as often the fluid will disappear as the patient's resistance increases. Always remove the focus of infection if possible. An organ affected with tuberculosis, if its removal can be accomplished without undue traumatism to the peritoneum or intestines, should be removed. Statistics from large series of cases show 50% cures and most all patients helped. It has been advised that operation

should not be performed too early in the attack, because recurrence is more likely in cases where the operation is performed before the tubercles are fully developed. The cure is attributed to the secretion of an immune serum which is claimed is not produced before the tubercles have been fully developed.

CONCLUSIONS

1. Patients suffering from tubercular peritonitis should be subjected to careful hygienic treatment which should be continued if the patient's condition improves.
2. Abdominal section is indicated in patients in which the condition becomes worse, does not improve, or where ascites to a distressing amount forms, removing the focus if possible to do so without injuring surrounding structures, and if it can be done easily.
3. Aim to arrive at an early correct diagnosis.
4. Never operate on an acute case which has been diagnosed as such.
5. Continue hygienic treatment after operation.
6. Never disturb peritoneal adhesions in patients suffering from tubercular peritonitis, for fear of producing fistulae. I would also advise closure of the abdominal wound following such operations, for the same reason.
7. All patients with pulmonary tuberculosis complicating, should have abdominal section done under local anaesthesia.
8. Apparently tubercular salpingitis predisposes to frequent abortions.

ERRORS IN ABDOMINAL DIAGNOSIS*

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Physical diagnosis of the chest has been reduced to a science. Combined with and supplemented by X-ray and other laboratory data the diagnoses of chest diseases have become quite free of error.

Skull injuries and intracranial diseases have been wonderfully illuminated by X-ray, ophthalmic and neurologic methods. Even brain tumors can now be localized by cerebral pneumography and ventriculography in expert hands.

The abdomen has been forced to give up many of its secrets to clinical and laboratory tests and yet errors in diagnoses are not infrequent. This fact is being repeatedly con-

*Read before the Detroit Surgical Society, Dec. 16, 1921.

firmed by postoperative diagnoses and autopsy findings.

Five years ago Foss presented a report of 1,170 patients studied in the Mayo Clinic. About one-half of them came to operation and it was noted that a gross error of 10.08 per cent was made in the primary diagnoses. Thirty-one were cases of abdominal diseases. The clinical and operative diagnoses were as follows:

CLINICAL	OPERATIVE
Gastric ulcer, 1.	Chronic cholecystitis and appendicitis.
Gastric ulcer, 1.	Thickened pyloric ring.
Carcinoma of stomach, 1.	Duodenal ulcer.
Carcinoma of stomach, 1.	Septic gall bladder with stones.
Functional stomach, 1.	Chronic cholecystitis.
Reflex, explore, 1.	Gall stones.
Duodenal ulcer, 3.	Chronic appendicitis.
Duodenal ulcer, 2.	Chronic cholecystitis.
Duodenal ulcer, 1.	Carcinoma of stomach.
Chronic cholecystitis, 1.	Duodenal ulcer.
Chronic cholecystitis, 1.	Carcinoma of stomach.
Chronic appendicitis, 1.	Duodenal ulcer.
Chronic appendicitis, 1.	Gall stones.
Chronic appendicitis, 1.	Hydrosalpinx.
Chronic appendicitis, 1.	Chronic cholecystitis.
Neurosis, explore (appendicitis), 1.	Chronic cholecystitis, with stones.
Pyloric ulcer, 1.	Carcinoma.
Pyloric obstruction, ulcer, 1.	Syphilis of stomach.
Pyloric obstruction, ulcer, 1.	Chronic cholecystitis.
Intestinal obstruction (postoperative adhesions), 1.	Ring carcinoma in transverse colon.
Aortic aneurysm, 1.	Ovarian cyst.
Ovarian cyst, 1.	Hydrosalpinx.
Ovarian cyst, 1.	Fibroids.
Ovarian cyst, 1.	Hydronephrosis.
Fibroids, 1.	Ovarian cyst.
Extension of pus pocket from perineal abscess, 1.	Pancreatic cyst.
Hemorrhagic Endometritis, 1.	Fibroids.
Carcinoma of Caecum, 1.	Chronic appendicitis with abscess.

The following report has been submitted to me by Dr. C. S. Ratigan. In a series of 350 abdominal cases operated on at Providence Hospital during the last four months there were fifty in which the primary diagnoses did not agree with the revised diagnoses. The discrepancies are shown in the parallel lines:

PRIMARY	REVISED
Acute suppurative appendicitis, 6.	Subacute appendicitis.
Subacute appendicitis, 15.	Chronic appendicitis.
Chronic appendicitis, 4.	Normal appendices.
Chronic salpingitis, 3.	Chronic appendicitis.
Chronic appendicitis, 3.	Gastric crises.
Ectopic pregnancy, 1.	Chronic appendicitis.
Acute appendicitis, 5.	Gangrenous appendicitis.
Duodenal ulcer, 1.	Acute hematogenous peritonitis.
Acute appendicitis, 3.	Cholecystitis and cholelithiasis.
Ectopic pregnancy, 1.	Normal pregnancy.
Abdominal ascitis, 1.	Carcinoma of omentum

Ceptic ovary, 1.	Perforation of ileum.
Perforation of duodenum, 1.	Gastro-intestinal intoxication.
Chronic appendicitis and cholelithiasis, 1.	Pulmonary T. B. and T. B. ulceration intestinalis.
Ceptic ovary, 1.	Pyosalpinx.
Chronic cholecystitis, 1.	Ruptured gall bladder, gangrenous.
Acute appendicitis, 1.	Typhoid fever.
Obstruction of bowel in baby, 1.	Operated, no obstruction found.

In the foregoing list there were 27 cases in which the two diagnoses showed the organ involved and the discrepancy was due to the grade of infection or of the pathologic process. They could properly be dismissed from the calculation. That would leave 23 cases of gross error in diagnosis or about 6½ per cent. It should be stated in this connection that the hospital in question is an open hospital to which general surgical cases are admitted and those operations were done by twenty-four different surgeons. It is presumably true that this list could be duplicated in other hospitals.

Correct abdominal diagnosis involves a consideration of all the symptoms and the application of all known means and methods. These are:

1. History of the case.
2. Physical diagnosis.
3. Laboratory data.

History taking records the age, sex, physical appearance, loss in weight, family history, marital data, character, location, and chronicity of pain, and all other pertinent symptoms and neuroses. So important is this part of the examination that Monahan remarked that he could diagnose appendicitis by letter. We are familiar also with the stress Graham laid on the patient's recital of the pain symptom in gastric and in duodenal ulcer.

The interpretation of abdominal pain is not the simplest matter, especially when it is understood that the intraperitoneal viscera, kidney, and testis can be handled roughly, cut or sewed without producing pain in the conscious patient.

Pain is produced by four causes, viz.:

1. Irritation of the parietal peritoneum.
2. Pulling upon the mesentery.
3. Tension within the organ.
4. Spasm or forcible contraction of unstriated muscle.

Contact of a foreign body with the parietal peritoneum or perforation of a hollow viscus with extravasation of its contents into the peritoneal cavity will cause sudden and severe pain.

Twisting of a mesentery of a gut or of the

pedicle of an ovarian tumor will also cause pain and possibly collapse.

Distention of a hollow viscus or unrelieved tension will produce pain. Every one has presumably experienced this kind of pain in the over full urinary bladder. Relief may succeed a painful distention owing to paresis of the muscular structures.

The colics or spasmodic pains are due to forcible contractions of the unstriated muscular structures of the hollow viscera.

It is a startling fact to realize that with the exception of forced emesis we lose conscious control of every particle of food and drink as soon as it passes the pharynx until it reaches the sphincter of the anus or bladder. Between these points the food is under control of an autonomic system of nodes akin to the blocking system of a railway.

I regard it as a wise provision that in the creation of both animals and man the digestive functions are almost "fool proof" and work automatically and without the control of the cranial nerves except in the reception of food and in defecation. It is a subject for conjecture if many of the neuroses and neurasthenic states are not traceable to the attempt of the central nervous system to gain ascendancy over the autonomic system.

Physical diagnosis of the abdomen is almost a "lost art." I never knew the reason for it, but it is nevertheless a fact, that teachers of physical diagnosis confine themselves to the chest and do not pretend to make or teach physical diagnosis of the abdomen. In spite of that the clinician fails to make a complete and thorough examination who does not make use of inspection, palpation, percussion, and, in certain cases, of auscultation. They may advantageously be combined with fluoroscopy and the latter with pneumoperitoneum. No abdominal examination is quite complete without bimanual examination, rectal examination and cystoscopy.

I should not leave this topic without referring to the distinction between subjective pain and tenderness. They may coincide but often do not. So important is the symptom of tenderness that the injunction is pertinent to "never ask where the pain is. Search for it."

It seems to be no longer the fashion of the surgeon or the specialist to evolve from the general practitioner. More than that we sometimes hear the younger surgeons disclaim any knowledge of the general practice

of medicine or any desire to know internal medicine. It is to me a subject of wonderment how any one can make a satisfactory diagnosis or even a physical examination to say nothing of conducting the post-operative treatment of a case without the experience acquired in a general practice. We talk about team work, a combination with which I am in hearty accord. It is a serious question, however, whether we as surgeons seek consultations with either internists or other surgeons as the cases demand. It is a fact that errors occur and such cases sometimes come within the notice of the court. They result from insufficient observation, which calls to mind the remark that "more mistakes are made in diagnosis on account of lack of observation than on account of lack of knowledge." To me a real surgeon means more than a mere technician who operates after a ready made diagnosis by an internist or a laboratory expert. He is master of the situation.

Roentgenology is becoming one of the most valuable aids to diagnosis. Carmen reported last year correct diagnosis of peptic ulcer in 98.21 per cent and localized the ulcer in 95 per cent of cases. He made also negative Roentgen diagnoses in 336 out of 351 cases or 95.76 per cent. Valuable data can be obtained also in chronic obstructions, in urinary cases and in determining adhesions by pneumoperitoneum.

Laboratory examinations of the secretions, excretions, blood, tissue, and bacterial infections are invaluable as aids to diagnosis but are not intended as diagnostic unless supported by clinical evidence.

ADRENALIN AND P. D. & CO.

Up to 1900 the medical profession had to be content with extracts and other preparations of the suprarenal gland that contained, besides what was wanted, a good deal of inert and possibly irritating material.

One manufacturing house at least was engaged in making a discovery—the isolation of the active principle of the suprarenal gland, or, if it is not quite accurate to speak of it as "the active principle," the pressor or blood-pressure-raising principle of the gland. For it was known that such a principle was contained some where in the gland substance, from the observed effect of aqueous solutions of suprarenal extracts; and it was this principle in pure form that was wanted.

Physicians need not now be told that the manufacturing house alluded to (Parke, Davis & Co.) was successful in its quest, for Adrenalin, the pressor principle sought, has been in use by the profession since 1901.

Official Minutes

of the

Mid-Winter Meeting of the Council

Detroit, January 10 and 11, 1922

FIRST SESSION

The first session of the semi-annual meeting of the Council of the Michigan State Medical Society was held in the Detroit Athletic Club, Detroit, at 7:00 P. M., January 10th, 1922. The Council was the guest of Dr. F. B. Walker, Councillor of the First District, at a most enjoyable dinner.

Present: Chairman, W. J. DuBois; President, W. J. Kay; Treasurer, D. Emmett Welsh; Councillors, Southworth, Randall, Seeley, Holdsworth, Jackson, Clancy, Walker, Stone and Dodge; Secretary-Editor, F. C. Warnshuis; Chairman of the Medico-Legal Committee, F. B. Tibbals; Associate Editor, Guy L. Connor; Secretary of the State Board of Registration, B. D. Harrison; Ex-Presidents, A. P. Biddle, Angus McLean; Delegates to the American Medical Association, A. W. Hornbogen and J. D. Brook; Chairman of the Committee on Civic and Industrial Relations, G. H. Frothingham and Dr. C. C. Slemmons.

ANNUAL REPORT OF THE SECRETARY-EDITOR, 1921

To the Chairman and
Members of the Council.
Gentlemen:

It is once more my privilege and honor to herewith transmit to you and through you to our members my annual report as Secretary-Editor for the year 1921. Precedent, established for many years, exacts that in the submission of his report your reporting officer shall incorporate therein such comments and recommendations as his executive experience and administrative work may indicate. In making such comment it is desired that it be distinctly understood that the comments made or the recommendations advanced are formulated from a conscientious study of the progress of our organization, its activities, its ideals and its obligations to its members and the public we serve. They are based on our sixteen years of administrative medical work in this state, nine years in the House of Delegates of our American Medical Association and as Vice-Speaker and now Speaker of that National body. To suppress the harping critic or the disgruntled we frankly announce that we disclaim all semblance of dictatorship and that there are no concealed ulterior motives. If these years of service, always at the cost of personal sacrifice and financial loss, have produced no constructive results we can state with all frankness that we have sought at all times to remain free from personal ambitions and have ever been motivated by the sole thought of service.

FINANCIAL STATEMENT

I submit herewith our certified accountant's official audit of the books and funds of the Society.

To the Council of the Michigan State Medical Society,
Dr. F. C. Warnshuis, Secretary,
Grand Rapids, Mich.
Gentlemen:

We have audited the books of account and record of the Michigan State Medical Society for the year ended December 31, 1921 and submit herewith our report.

We include as part of this report a statement of Income and Expense, setting forth in detail the results of the financial transactions of the Society for the year ended December 31, 1921, which we have condensed and arranged for comparison with the year ended December 31, 1920, in the following summary:

JOURNAL INCOME

	Year Ended Dec. 31, 1921		Year Ended Dec. 31, 1920	
	Amount	Per Cent	Amount	Per Cent
Subscriptions, reprints, sale of advertising space, etc. . . .	\$12,449.78	100.00%	\$11,259.77	100.00%
Less: Journal and reprint expense	14,953.40	120.00	12,843.06	114.06
Loss on Journal publication . . .	\$ 2,503.62	20.10%	\$ 1,583.29	14.06%

DUES AND OTHER INCOME

Membership dues, etc.	\$ 2,996.95	100.00%	\$ 3,357.03	100.00%
Less: Annual Meeting, Society Expense, etc. . .	4,166.50	139.02	4,493.33	133.85
Excess of Society Expense over Dues, etc. . . .	\$ 1,169.55	39.02%	\$ 1,136.30	33.85%
Net Loss for the Year	\$ 3,673.17		\$ 2,719.59	

Balance sheet setting forth in detail the assets and liabilities of the society as of the close of business December 31, 1921, is included in and made a part of this report, subject to the following comments:

Cash on deposit at December 31, 1921 was verified by direct communication with the Grand Rapids Savings bank and reconciliation of the balance reported by the bank with the book records.

All recorded cash receipts for the year ended December 31, 1921, were traced directly to the bank deposits and all recorded cash disbursements were found to be supported by cancelled bank checks, invoices or other data on file.

Accounts receivable were verified by trial balance of the individual accounts.

The inventory of paper is as reported to us by the Dwight Bros. Paper company, which is storing it pending the need for its use. The inventory has been valued at cost, which was identical with the market price at December 31, 1921.

Securities owned, aggregating \$5,500.00, as

shown of the balance sheet, were verified by inspection of the bonds.

Full provision has been made for all ascertained liabilities of the Society at December 31, 1921 for unpaid purchases, expenses, etc., disclosed by our examination of the records and information obtained by us.

Reserve for expenses of legislative committee represents contributions to the Society for the specific use of the legislative committee.

We hereby certify that we have audited the books of account and record of the Michigan State Medical Society for the year ended December 31, 1921, as kept by your Secretary-Editor, Dr. F. C. Warnshuis, and that, in our opinion, based upon the records examined and information obtained by us, the accompanying balance sheet is drawn up so as to set forth the correct financial position of the Society at the close of business, December 31, 1921, and that the relative operating statement is correct.

Very truly yours,

[Signed] Ernst & Ernst.

BALANCE SHEET

MICHIGAN STATE MEDICAL SOCIETY

As of the close of business, December 31, 1921

ASSETS

Current—

Cash

Grand Rapids Savings

Bank\$ 239.74

Accounts Receivable

Due from Subscribers,
Advertisers, etc. 742.26

Inventory

Paper Stock for Journal. 526.11 \$1,508.11

Securities Owned—

Liberty Loan Bonds.... 3,500.00

Citizens Telephone Co.

Bonds 2,000.00 5,500.00

\$7,008.11

LIABILITIES

Current—

Notes Payable

To Banks\$2,500.00

Accounts Payable

Unpaid Purchases, Ex-
penses, etc. 1,273.15 \$3,773.15

Reserve

For Expenses of Legis-
lative Committee 135.00

Net Worth

Balance, January 1, 1921 6,773.13

Less: Net Loss for year

1921 3,673.17 3,099.96

\$7,008.11

(Note A) This balance sheet is subject to the comments contained in our "certificate" included in and made a part of this report.

INCOME AND EXPENSE

MICHIGAN STATE MEDICAL SOCIETY

For the year ended, December 31, 1921

INCOME

Journal Subscriptions:

Members ..\$5,347.35

Outside ... 63.60 \$5,410.95

Advertising Sales 5,779.57

Reprint Sales 1,241.76

Sale of Extra Journals 17.50

Membership Dues 2,676.05

Interest Received (Net) .. 298.10

Accounts Receivable Credit

Balances Charged off... 22.80 \$15,446.73

EXPENSE

Journal Expense\$13,687.09

Reprint Expense 1,266.31

Society Expense 2,651.92

Annual Meeting Expense. 716.38

Expense of Delegates to

A. M. A. 652.03

Council Expense 135.14

Secretary's Expense 8.03

Loss on Bad Accounts ... 3.00 19,119.90

NET LOSS\$ 3,673.17

ITEMIZATION OF EXPENDITURES

EXPENSES OF DELEGATES TO A. M. A.

Dr. A. W. Hornbogen.....\$ 202.28

Dr. Walter J. Wilson 114.95

Dr. J. D. Brook 167.40

Dr. F. C. Warnshuis 167.40 \$ 652.03

COUNCIL EXPENSE

Dr. J. B. Jackson\$ 17.88

Dr. W. T. Dodge 25.07

Dr. W. H. Parks 36.08

Dr. W. J. DuBois 20.11

Dr. S. K. Church 5.00

Dr. F. C. Warnshuis 21.00 \$ 125.14

SECRETARY'S EXPENSE

Battle Creek\$ 4.97

Bay City 3.06 \$ 8.03

ANNUAL MEETING

Wenonah Hotel\$ 68.45

Badges 38.00

Programs 136.25

Reporting Annual Meeting... 551.05

\$ 793.75

Refund from Exhibitors 70.97 70.97 \$ 722.78

SOCIETY EXPENSE, 1921

JANUARY—

Dr. F. C. Warnshuis, salary \$ 75.00

Dr. F. C. Warnshuis, rent .. 17.50

Postmaster, mailing certi-
ficates 25.00

Postmaster, office postage.. 10.00

Powers-Tyson Printing Co.,
certificates 24.35

J. S. Crosby Co., insurance. 3.00

Western Union Telegraph Co. .80

Dr. D. Emmett Welsh, honor-
arium 100.00

Taylor-Strom 2.50

E. Ford, salary 40.00 \$ 298.15

FEBRUARY—

Dr. F. C. Warnshuis, salary \$ 75.00

Dr. F. C. Warnshuis, rent .. 17.50

Postmaster, office postage . 10.00

Powers-Tyson, ledger sheets 27.65

Western Union Telegraph Co. .70

J. A. Thompson Typewriter
Co. 1.00

Edna Barker, reporting Ann

Arbor conference 40.42

E. Ford, salary 40.00 \$ 212.27

MARCH—

Dr. F. C. Warnshuis, salary \$ 75.00

Dr. F. C. Warnshuis, rent .. 17.50

Taylor Typewriter Store... 3.50

Mich. State Telephone Co. . 2.40

Munson Supply Co., type-		
writer keys	4.00	
E. Ford, salary	40.00	\$ 142.40

APRIL—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	17.50	
Postmaster, office postage..	10.00	
Bixby Office Supply Co.85	
Bixby Office Supply Co. ...	2.10	
American Medical Assn. ...	12.00	
E. Ford, salary	40.00	\$ 157.45

MAY—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	15.00	
Taylor Typewriter Store...	1.75	
Ernst and Ernst, auditing		
books	50.00	
Bixby Office Supply Co. ...	2.50	
Western Union Telegraph Co.	35.27	
W. H. Marshall, committee		
expense	10.00	
Postmaster, office postage..	10.00	
E. Ford, salary	40.00	\$ 239.52

JUNE—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	15.00	
Western Union Telegraph Co.	1.15	
Bixby Office Supply Co. ...	12.60	
Postmaster, office postage..	10.00	
Dr. Warnshuis, postage ...	5.60	
E. Ford, salary	40.00	\$ 159.35

JULY—

Mich. State Telephone Co. .	\$ 3.50	
Western Union Telegraph Co.	3.69	
Daily News Co., stationery .	53.75	
Postmaster, office postage..	10.00	\$ 70.94

AUGUST—

E. Ford, salary (July)	\$ 40.00	
Dr. F. C. Warnshuis, rent		
(July and August).....	30.00	
Dr. F. C. Warnshuis, salary		
(July and August)	150.00	
E. Ford, salary (August) ..	40.00	\$ 260.00

SEPTEMBER—

Fox Typewriter Co.	\$ 50.00	
Postmaster	10.00	
E. Ford, September salary.	40.00	\$ 100.00

OCTOBER—

Dr. F. C. Warnshuis, salary		
(September and October)	\$ 150.00	
Dr. F. C. Warnshuis, rent		
(September and October)		
and postage	34.66	
Dwight Bros. Paper Co. ...	14.98	
Bixby Office Supply Co.	2.80	
Western Union Telegraph Co.	3.33	
Taylor Typewriter Store ...	1.75	
Postmaster, office postage..	10.00	
E. Ford, salary	40.00	\$ 257.52

NOVEMBER—

Western Union Telegraph Co.	1.70	
Taylor Typewriter Store ..	5.50	
Dwight Bros. Paper Co. ...	1.47	
Postmaster	5.00	
Goodhew Floral Co., flowers		
for Ann Arbor Armistice		
Day exercises	15.00	
E. Ford, salary	40.00	\$ 68.67

DECEMBER—

Dr. F. C. Warnshuis, salary		
(Nov. and Dec.)	\$ 150.00	
Dr. F. C. Warnshuis, rent		
(Nov. and Dec.)	30.00	
Postmaster	10.50	
Educational Campaign in		
June Journal by direc-		
tion of President Angus		
McLean	350.00	
E. Ford, salary	40.00	\$ 580.50
J. S. Crosby	\$ 16.29	
Western Union Telegraph Co.	1.51	
Taylor Typewriter Store ..	1.25	
J. A. Thompson	16.40	
J. A. Thompson	1.50	
Serfling-Sinke Co.	1.20	\$ 38.15

JOURNAL EXPENSE

JANUARY—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	17.50	
Dr. Guy L. Connor, salary .	50.00	
Postmaster, mailing journals	15.00	
Detroit Clipping Bureau..	10.72	
J. S. Crosby Co.	3.00	
Tradesman Co.	1,032.65	
Detroit Clipping Bureau ..	5.60	
Taylor-Strom Letter Co....	5.55	
E. Ford, salary	40.00	\$1,255.02

FEBRUARY—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	17.50	
Dr. Guy L. Connor, salary .	50.00	
Postmaster, mailing journals	15.00	
Barlow Brothers	15.50	
Taylor-Strom Letter Co. ..	12.75	
Tradesman Co.	1,894.05	
E. Ford, salary	40.00	\$2,119.80

MARCH—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	17.50	
Dr. Guy Connor, salary ..	50.00	
Postmaster, mailing journals	15.00	
Detroit Clipping Bureau ..	4.84	
Taylor Typewriter Store ..	.68	
Tradesman Co.	1,171.21	
E. Ford, salary	40.00	\$1,374.23

APRIL—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	17.50	
Dr. Guy L. Connor, salary	50.00	
Postmaster, mailing journals	15.00	
Tradesman Co.	1,728.61	
Detroit Clipping Bureau ..	10.08	
E. Ford, salary	40.00	\$1,936.19

MAY—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	15.00	
Dr. Guy L. Connor, salary	50.00	
Taylor-Strom Letter Co. ..	3.85	
Tradesman Co.	1,344.27	
Postmaster	15.00	
E. Ford, salary	40.00	\$1,543.12

JUNE—

Dr. F. C. Warnshuis, salary	\$ 75.00	
Dr. F. C. Warnshuis, rent ..	15.00	
Dr. Guy L. Connor, salary	50.00	
Taylor-Strom Letter Co. ..	8.00	
Detroit Clipping Bureau ..	8.48	

Tradesman Co.	845.08		
Postmaster	15.00		
E. Ford, salary	40.00	\$1,056.56	

JULY—

Postmaster	\$ 15.00	\$ 15.00	
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AUGUST—

Dr. F. C. Warnshuis, salary (July and Aug.)	\$ 150.00		
Dr. F. C. Warnshuit, rent (July and Aug.)	30.00		
Tradesman Co.	867.76		
The News Publishing Co. ..	628.32		
E. Ford, salary	40.00	\$1,756.08	

SEPTEMBER—

Postmaster	\$ 10.00		
Tradesman Co.	300.00		
E. Ford, salary	40.00	\$ 350.00	

OCTOBER—

Dr. F. C. Warnshuis, salary (Sept. and Oct.)	\$ 150.00		
Dr. F. C. Warnshuit, rent (Sept. and Oct.) and mailing G. R. Journals ..	35.00		
Postmaster	11.00		
Dr. Guy L. Connor (Sept. and Oct.) salary	100.00		
Tradesman Co.	673.89		
Daily News Co.	1,104.32		
Detroit Clipping Bureau ..	28.16		
Taylor-Strom Letter Co. ..	4.65		
Daily News Co.	400.00		
E. Ford, salary	40.00	\$2,547.02	

NOVEMBER—

Postmaster, mailing G. R. Journals	\$ 5.50		
Postmaster, mailing Journals	15.00		
Daily News Co.	811.89		
Addressograph Co.	1.60		
Taylor-Strom Letter Co. ..	3.30		
E. Ford, salary	40.00	\$ 877.29	

DECEMBER—

Dr. F. C. Warnshuis, salary (Nov. and Dec.)	\$ 150.00		
Dr. F. C. Warnshuis, rent (Nov. and Dec.)	30.00		
Postmaster	15.00		
Daily News Co.	784.91		
Dr. Guy L. Connor, salary (Nov. and Dec.)	100.00		
E. Ford, salary	40.00	\$1,119.91	

Dwight Bros. 230.99

The loss incurred was beyond my control. The Council directed that certain expenses be incurred and these instructions were complied with. By referring to the trial balance and summarization report it will be evident that expenditures were voted that exceeded every possibly yearly income. The reporting of a loss is the only result that can be expected, when we cause our disbursements to exceed our receipts.

To reveal this condition I submit the following comparative statement:

	1920	1921	Loss	Gain
Bond Account	\$ 4,300.00	\$ 2,500.00	\$2,300.00	\$.
Liberty Bond Acct.	3,500.00	3,500.00		
Checking Account ..	823.51	239.74	583.77	
Accts. Receivable ..	725.34	742.34		16.92
Advertising Sales ..	5,310.41	5,310.41		469.16
Membership Dues ..	2,973.25	2,676.05	297.20	
Reprint Sales	1,345.64	1,241.76	103.88	
Interest Received ..	383.78	298.10	85.68	
Outside Subs'ptions	25.50	63.60		38.10

Journal Subs'ptions	4,577.22	5,347.35	770.07
Journal Expense ..	11,321.05	13,687.09	2,366.04
Society Expense ..	2,105.41	2,651.92	546.51
Annual Meeting ..	1,367.33	716.38	650.95
Council Expense ..	222.13	135.14	86.99

DISSECTION OF INCOME AND DISBURSEMENTS

Greatest Revenue Possible			
Dues	\$ 2,676.05		
Interest	298.10		
	\$ 2,974.15	\$ 2,974.15	

Expenditures—			
Society	\$ 2,651.92		
Council	135.14		
Annual Meeting	716.38		
Secretary	8.03		
Delegates to A. M. A. ..	652.03		
	\$ 4,163.50	\$ 4,163.50	

Increased Expend. over Receipts	\$ 1,189.35		
	\$ 4,163.50	\$ 4,163.50	

JOURNAL

Advertising Sales	\$ 5,779.57		
Subscriptions	5,347.35		
Reprint Sales	1,241.76		
Outside Subs.	63.60		
Sale Extra Journals ..	17.50		
	\$12,449.78	\$12,449.78	

Expenditures—			
Printing	\$13,687.09		
Reprint Sales	1,266.31		

Loss on Journal.	\$14,553.40	\$ 2,503.62	
	\$14,953.40	\$14,953.40	

THE JOURNAL

During the year 34,500 copies of the Journal have been mailed. The volume completed consisted of 544 pages of reading matter. The total cost of the Journal was \$14,953.40, the total earnings was \$12,449.78 thereby exhibiting a net loss for the year of \$2,503.62. In incurring this loss your editor complied with the instructions imparted by the Council at its last session. A far greater loss was not incurred by reason of the fact that we were able to secure a new printing firm, not controlled by the printing combine and thereby saving approximately \$800 on the last four issues.

Our net advertising earnings was \$5,779.57, which represents an advertising income increase of \$469.16 and which total amount is the largest yearly earning in the history of the Journal.

Under our present contract and with the year's supply of paper already purchased at a pre-war price we feel justified in concluding that we have at last weathered the financial storm and emerge with a publication that has maintained the high standard it enjoys.

Each month finds an increasing demand for space for the articles and reports of our members. It is impossible to publish articles as promptly as we would like because of the limitation of space available in each issue. We are forced to disappoint several members each month. This is, however, unavoidable and must continue so for at least another year until we perceive that the cost does not exceed the income, for it will be impossible to increase the number of reading pages until that fact is established and a working reserve has been accumulated. The time required for building that reserve may be lessened were the Journal to receive greater support for its advertising pages from our members. We lose approximately \$1,000 per year because contracts are cancelled by advertisers who receive no response to their advertisements. Our members can prevent that loss.

As to the value of the Journal we make no comment. From time to time we have published in our correspondence column the commendation of our members and also our readers in other states. We have no apologies to make. Editorially we have sought to comment upon all matters that

concerned our society and our members. In such editorial comment we have sought to repress personal views. It has ever been our purpose to reflect the opinion of the profession of the state and of the country. The editorial pages have always been open to our members and we have repeatedly urged that they utilize them for the discussion of confronting problems. Whenever in doubt we have never failed to consult the Council's Committee on Publication. It must be acknowledged that the Journal is by far the most valuable feature of our organization. It is the only method by which contact between component societies and members can be maintained. It is the most effective medium for maintaining organizational solidarity.

To maintain the standard attained, to continue to serve as it has served and to further organizational activities is constantly demanding more time, thought and effort. It is impossible to convey all that is entailed in editorial management. Until one encounters the numerous details involved it is extremely difficult to appreciate the time that is consumed in editorial and business direction.

We desire to record our appreciation of the valued assistance received from our Associate Editor, Dr. Guy L. Connor. Especially has he been active in supplying the news notes of the activities of the members in Detroit and vicinity.

We have no special recommendations to make regarding new policies. We do, however, wish to invite consideration of the advisability of opening a department for the discussion of problems concerning public relationship and the education of the public in regard to health problems and other medical matters. Later on in this report we shall comment upon that feature of our organization work. The question in so far as the Journal is concerned is whether such a department shall be conducted with the co-operation of our Committee on Civic and Industrial Relationship and then by an appropriation of a fund obtained from the special fund that is being raised, reprints of that department's monthly comments be made and sent to every newspaper editor in the state. We firmly believe that many of the papers will publish these comments and thus aid us in placing before the public reliable facts that will be of inestimable educational value. Especially so, if the co-operation of county societies be secured and they interview their local newspaper men. The Council's recommendation is requested.

NUMBER OF JOURNALS PRINTED

January	3,025	August	2,950
February	3,050	September	2,950
March	3,100	October	2,950
April	2,200	November	2,950
May	2,750	December	3,000
June	2,775		
July	2,800		34,500

SOCIETY WORK

The following is a list of County Societies with their paid membership as revealed by the membership roll on December 30, 1921.

	1920	1921	Gain	Loss
Alpena	23	21		2
Antrim-Charlevoix-Emmett	24	14		10
Barry	18	17		1
Bay	63	62		1
Benzie	8	8		
Berrien	25	37	12	
Branch	16	17	1	
Calhoun	103	100		3
Cass	7	7		
Cheboygan	8	3		5
Chippewa-Luce-Mackinaw	24	15		
Clinton	21	11		10
Delta	21	20		1

Dickinson-Iron	13	11		2
Eaton	22	17		5
Genesee	118	112		6
Gobeic	21	12		9
Grand Traverse-Lelanau	22	24	2	
Gratiot-Isabella-Clare	40	36		4
Hillsdale	19	21	2	
Houghton	51	49		2
Huron	15	18	3	
Ionia	17	21	4	
Ingham	93	85		8
Jackson	52	57	5	
Kalamazoo	118	112		6
Kent	178	175		3
Lapeer	26	23		3
Lenawee	30	28		2
Livingston	6	4		2
Macomb	27	26		1
Manistee	15	12		
Marquette-Alger	40	38		2
Mason	4	0		4
Mecosta	15	14		1
Menominee	9	7		2
Midland	0	6	6	
Monroe	25	25		
Montcalm	17	17		
Muskegon	57	56		1
Newaygo	10	11	1	
Oakland	56	54		2
O. M. C. O. R. O.	10	9		1
Ontonagon	8	8		
Osceola-Lake	4	0		4
Ottawa	32	35	3	
Presque Isle	0	0		
Saginaw	66	60		6
Sanilac	17	16		1
Schoolcraft	7	7		
Shiawassee	29	27		2
St. Clair	50	46		4
St. Joseph	26	14		12
Tri-County	23	21		2
Tuscola	25	25		
Washtenaw	89	98		9
Wayne	1,012	1,169	157	
	2,875	2,938		

One year ago our membership was 2,875 as compared with a present membership of 2,938. Credit for this gain of 91 members, considering the loss of 28 by death, in membership is entirely due to the officers, especially the secretaries and membership committees of our county Societies. In Wayne County, particularly, an aggressive campaign was conducted to enroll all eligible doctors.

There are approximately 4,593 doctors in Michigan. Of that number it is estimated that twenty per cent are ineligible for membership. There are then 675 doctors who for personal reasons, chiefly that of indifference, who remain unaffiliated. We do not believe that they will become affiliated until they perceive by their isolation, that they forego the benefits of membership and that knowledge cannot be imparted to them except by personal interview. We therefore must recommend that County Society officers continue industriously throughout the year with this missionary work so that there may be recorded an increasing number of 100 per cent societies.

We desire, also, to record the splendid co-operation and work that has without exception been rendered by county secretaries. Far too often do our members neglect to recognize the work performed by county secretaries. We urge that greater recognition be given them and that our members accord them greater co-operative support.

During the year we have written a monthly letter to every secretary commenting upon organizational work and discussing topics of executive activity. We believe that these letters have been the means of maintaining a closer relationship between this office and our county units.

From time to time letters of commendation have been published in the Journal, at other times they have been sent to the Publication Committee of the Council. Expressed criticism has been wanting. On two occasions we have received inquiries as to why we were not more insistent and did not run more comment upon State Medicine, Compulsory Health Insurance, and the Medical Department of the University.

Our answer is: That it has been our policy never to express opinion, commendation or criticism upon any subject that was being handled by special or regular committees of our Society. Whatever publicity these special subjects or incidents might demand has always been left to the judgment of these committees to whom the editorial pages of the Journal are always open. We have endeavored never to embarrass these committees by our own summarization and discussion. We have always refrained from everything that might give semblance of infringement upon the policies or provinces of these committees. We are, however, always ready to respond to their calls and to place the facilities of this office at their command. We advance this statement for the information of the Council and our members.

COUNCILLOR DISTRICT MEETINGS

The Council recommended that each Councillor during the year cause to be held a District Meeting. Thus far such meetings have been held in the districts of the following Councillors: Dodge, Randall, Clancy and Jackson. It is again urged that the remainder of these meetings be held during the forthcoming two months. There can be no doubt but what they are extremely beneficial to our organization work. Results are perceptible immediately after such a meeting is conducted.

ANNUAL MEETING

Flint was selected by the House of Delegates as the place for the holding of our next annual meeting. By action of the House several important matters will be presented at that session—Revision and adoption of a new constitution and by-laws, Report of the Fee Relationship. In view of which it is recommended that the Council call an extra session of the House of Delegates convening at 1:30 P. M. on the first day of our Annual Session. That the House of Delegates be instructed by the Council to make the following as the special order of business of that extra session:

1. Organization of the House.
 2. Report of the Committee on the Revision of the Constitution and By-laws and its amendment and adoption.
 3. Report of the Committee on Civic and Industrial Relationship.
 4. Report of the Legislative Committee.
- That the second session of the House of Delegates be held at 7:00 P. M. of the first day. The third session to convene at 8:30 A. M. of the second day and continue through to 10:00 A. M. The fourth session to be held at 8:30 A. M. of the third day.

It is recommended that the several addresses of welcome of the first general session be dispensed with and that the time of our members be conserved by omitting the idle platitudes usually tendered in those addresses. That the program for the General Session consist of:

Call to Order.

Prayer.

Address of Welcome by the President of the Local Society.

General Announcements.

President's Annual Address.

Address of Invited Guest.

Resolutions and Memorials.

DEATHS

The following members are recorded as having responded to their last call:

Dr. Mortimer Wilson	Dr. C. B. DeNancrede
Dr. Thomas B. Henry	Dr. B. Howard Lawson
Dr. A. S. Kimball	Dr. M. C. McDonnell
Dr. F. H. Tyler	Dr. A. M. Darling
Dr. Theo. A. McGraw	Dr. William Elliott
Dr. S. John Fraser	Dr. George F. Lavin
Dr. J. D. Riker	Dr. J. N. Jessup
Dr. John J. Marker	Dr. Hilem E. Branch
Dr. M. L. Cushman	Dr. C. A. Gottman
Dr. George F. Clark	Dr. Albert A. Parisot
Dr. Harlow B. Drake	Dr. William Elliott
Dr. B. R. Hayt	Dr. Frank Thomas
Dr. H. W. Longyear	Dr. Enos C. Kinsman
Dr. Carl Meloy	Dr. W. H. Baldwin

ORGANIZATIONAL WORK

As a society it can be stated that as far as perfecting a medium for the interchange of scientific ideas and opinion, the discussion of our scientific problems, providing of avenues of intercommunications, the binding together of medical men and the maintenance of fellowship, we have well nigh fully attained the ideals sought. Our scheme and plan of organization in that respect meets up to present requirements and leaves but little to be desired. We have, however, other responsibilities and these we have in a large degree woefully neglected. We refer to our relationship and obligation to the public. In the light of recent events it demands serious thought and action. We have surveyed, discussed and memorialized, but that is as far as we have gone. The results and present conditions are consistent with the interest and activity we have revealed. The time is now at hand for action that is definite and efficient.

That action must manifest itself in the form of an educational campaign for the instruction of the public. We must enlighten the people in regard to what we have been, what we are and what we can be as well as to how we can make more valuable the services that we render to the public collectively and individually. We are veritably a "lost battalion" in the midst of public opinion that is seeking to solve and combat its health problems. We are continuing to fail to assume leadership and direction of affairs and are remaining idle as far as the accomplishment of results are concerned. We have been sobbing and prognosticating, but we fail to arouse ourselves from the inert attitude that we maintain. We are firm in the opinion that from this meeting on, aggressiveness is indicated. It is recommended that this session continue in its deliberations until a definite plan be adopted and definite instructions be imparted to immediately undertake the work in a manner that will record results from its inception.

The most important and potential committees of our Society are the Committee on Civic and Industrial Relationship and Legislation and Public Relations. The by-laws prescribe the duties of these committees. It is recommended that the Council, through committees and such additional assistance as may be required, undertake the following:

1. The education of the people of Michigan in:
 - a. The history of the profession's accomplishments.
 - b. What is being done today to reveal the cause, course and progress of disease and methods of combating disease.
 - c. How health may be conserved.
 - d. How, in the light of scientific knowledge, disease, defects and deformities may be minimized and eradicated.
 - e. The value of personal and public hygiene.

To enter in upon the discussion of the details of such a campaign is impossible at this time. Methods for the conduct of the work must be developed as the campaign gains headway.

2. A definite plan of concerted action through the Legislative Committee in co-operation with the Committee on Civic and Industrial Relationship to acquaint and impress civic executives from governor to supervisor and members of the legislature with facts regarding results that are obtainable by proper health legislation and supervision. To pledge these executives in support of the movement. To bring the necessary political pressure to bear as may be indicated.

3. The education of the public in regard to the fallacies of cult theories and practices.

If we are to secure just appreciation as a profession and as scientists the people must be taught our value. We must tell them in terms and by methods that will definitely fix their opinions. No longer can we continue in cloistered existence or cling to obsolete traditions. It will be exceedingly detrimental to attempt to maintain the priesthood attitude of old and foster the environment of mysticism.

Now comes the question, how may this be done? We do not hope to be able to write out and proffer a complete plan of working specifications, we do proffer pertinent features:

The work must be correlated. There must be no disassociation of activity or action. An advisory board, holding monthly sessions, composed of the President, Chairman of the Council and the Secretary of our State Society should be created. The Chairman of the two committees concerned should be requested to sit in on the occasion of these monthly conferences. The Council to authorize this group of five to institute the above plan. This group shall be required to delegate specific duties to committee members and to exact the performance of such assigned work. When necessary the group may employ additional assistance. A monthly report imparting what has been accomplished and what is being undertaken should be mailed to each member of the Council. Any Councillor may appear and participate in the discussions conducted at the monthly conferences. The minutes of these conferences shall be incorporated with those of the Council.

The expense of carrying on this educational work to be defrayed from a special fund that was approved to be solicited by the House of Delegates. This fund shall be deposited with the other funds of the society and disbursements of the same shall be made in the regular manner and upon the voucher signed by the Chairmen of the Council, the Treasurer and the Secretary as prescribed by our by-laws. At the present time \$155 has been contributed to this fund.

With such a working plan we are firm in the opinion that with the conscientious contribution of the time and effort of the personnel of this group definite results will ensue—results that must be obtained if we ever hope to acquit ourselves of the responsibilities that rest upon us as a profession. The work must not be delegated to those who are not affiliated with our society. While we may employ other means, other organizations, other groups of citizens to co-operate; while we may interest some of the at present organized lay societies, the control and direction of the work must never be permitted to pass out from our state society and it must remain under the direct supervision of the Council.

A code of ethics was formulated by our elders for their and our guidance. So must we formu-

late the new ideals and rules that shall govern and direct our future activities. We must revamp, revise and add to that Code of Ethics so that through its precedents we will conserve a distinguished position, acquire renewed public confidence and establish a leadership in State and Nation in all matters pertaining to the health and physical welfare of the people. Therein lies our future stability, the future of medical science, practice, hopes and aims. Let us ever remember that what is stirring the world's heart, changing the face of the times and representing the form and working of the age is that intelligence, that sentiment, those thoughts and opinions, whose spoken and written word is power. That power is ours, providing we formulate an acceptable ideal that will impregnate the activities of our associates in the readjustment of medical contact with the people who compose our constituency. And when the day is past and our bit of work is done, the ideal we have served will whisper a sweet and secret joy—we have labored, and others will enter into our labors.

Respectfully submitted,

F. C. WARNSHUIS,
Secretary-Editor.

The Chairman referred this report to the several committees of the Council.

TREASURER'S ANNUAL REPORT

Dr. D. Emmett Welsh submitted the following as his annual report as Treasurer:

To the Council of the Michigan State Medical Society:

Gentlemen:

The following will convey to you the amount of funds of the Michigan State Medical Society in my hands for the year ending December 31st, 1921:

Citizens Telephone Bonds,	
Nos. 139 and 140.....	\$2,000.00
U. S. Liberty Loan Bonds,	
1st Issue, 3½%, No. 8450.....	500.00
U. S. Liberty Loan Bonds,	
2nd Issue converted 4¼%,	
No. E00018035.....	1,000.00
No. B00015757.....	500.00
U. S. Liberty Loan Bonds,	
4¼%, 3rd Issue converted,	
No. 1466140.....	1,000.00
No. 572985.....	500.00

Total.....\$5,500.00

The following will convey to you the amount on hand in the defense fund for the year ending December 31st, 1921:

U. S. Liberty Loan Bonds,	
2nd Issue converted 4¼%,	
No. A00015756.....	\$ 500.00
Balance in checking account at the	
Peoples State Bank of Detroit.....	2,655.64

Total.....\$3,155.64

Respectfully submitted,

D. EMMETT WELSH,
Treasurer.

Dr. F. B. Tibbals submitted his annual report as Chairman of the Medico-Legal Committee.

CHAIRMAN'S ADDRESS

Chairman DuBois then addressed the Council as follows:

During the last few months since our last State Society meeting many things have happened. Some of them have been to our liking, but many that are on the other side.

The report of the Chairman of the Medico-Legal committee is interesting and I shall be pleased to see the society take some action relative to the giving of full protection, including payment of any damages that may be obtained against our members, and would advise that a committee of three of the Council investigate and report on the feasibility of this at the next meeting of the Council.

Much confusion exists at our annual meeting because of the many sections that I would recommend a committee be appointed to report at the morning meeting of this session on the advisability of reducing our section meetings to two sections, Medicine and Surgery. The scheme I have in mind will be referred to later and explained. I believe we all want to get away from the small attendance at section meetings and also to do something that will give us larger attendance at the reading of the more important papers.

At the Bay City meeting of the House of Delegates a resolution was introduced by Dr. Walker of Wayne, that the rules be suspended, and the constitution amended to increase the membership of the Committee on Legislation and Public Policy to five. This action, it appears, seems to have made the committee unwieldy and the chairman of that committee, with the sanction of the members of his committee, appealed to President Kay and there was caused to be created what they called an Executive Committee of the Legislative and Public Committee. This committee met recently and sent a telegram to a certain Dr. Lorenz, who is sojourning in this country, inviting him in the name of the State Medical Society to visit our state. This action, in the opinion of your Chairman, was unwarranted and was apt to put us in bad light with the public and was not consistent with the sentiments of a goodly majority of our members. I immediately wired Dr. Lorenz that the committee's action was unwarranted and unauthorized by the State Society.

This same committee at about the same time met the authorities of the University of Michigan and discussed the differences we had with them and announced to the public that our troubles had been buried and that in the future we would work in harmony. Now who of the officers of the State Society officiated at this burial I am at a loss to know. As Chairman of the Council I knew nothing about the action until I received a copy of the Michigan Union with the announcement on the front page. Now, gentlemen, we are under the necessity of ratifying this agreement, whatever it may be, or doing an endless amount of explaining to the public. The chairman of this committee was a guest at a dinner in Kalamazoo recently and announced that the trouble was ended and wrote me that they were more than satisfied, but my impression gained at a meeting held there last Tuesday evening was that they were anything but satisfied, and this opinion prevails over the state wherever I have had occasion to talk on the matter.

The question is thereby raised as to whether a committee of our Society is empowered to pledge and bind the Society without conference with the constituted body of our Society, which is empowered to act in behalf of the membership in the ad interim of our annual meeting.

This is a matter that I present to you for a full discussion.

COMMITTEE ON INDUSTRIAL AND CIVIC RELATIONS

Dr. G. E. Frothingham addressed the Council as follows:

Gentlemen:

It is my pleasure and my privilege to be with you. In these days of uncertainty, it is a wise man who brings not only his liquid refreshment, if he wants any, but also a printed speech, in case he is given a chance to talk. Then there need be no alibi in the gray dawn of the morning after.

Your Committee on Civic and Industrial Relations believe that Michigan's great opportunity has come with the raising of Dr. Warnhuis to the speakership of the House of Delegates of the A. M. A. By the appointment of the right kind of men on committees, a body blow can be struck at the various Foundations, Professional Well-farers, Public Health Service men and socialists in and out of the medical profession who are doing their level best to socialize medicine under many names and forms. A committee which will give the country a crystal clear definition of State Medicine will be a blessing to physician and layman.

I desire to call your attention to the circulars which are being sent out in the name of the Medical Advisory Committee, copies of which you have. As I understand this so-called committee, it is an elastic association whose sole purpose is to act as a sort of clearing house for information—to get the medical men who are fighting the socialization of medicine in touch with one another and to place the control of the A. M. A. in the hands of the rank and file. As explained to me, there are no emoluments and there will be no glory—nothing but hard work and the certainty of hard knocks.

In order to get under way with the least possible delay, Dr. Edward H. Ochsner of Chicago, whom you all know for his brilliant work against Compulsory Health Insurance, consented to act as chairman, and Dr. F. C. McMechan of Avon Lake, Ohio, agreed to superintend the clerical work. The expenses for postage and printing will be subscribed by those who feel the work is needed. The hope is that each state will name its own representatives on the committee.

At Boston, the Public Health Service men were splendidly organized, while those fighting against socialized medicine were in a way isolated units of states. The lack of organization was shown when Dr. Billings repudiated his "Unequivocal Approval of Compulsory Health Insurance" speech and Public Health Service men outvied one another in abuse of men who had dared call up this speech for the information of the delegates and the fighters for free medicine said not a word—each state seeming to expect the other to take the lead. The delegates must act in unison. If we are to accomplish anything. I shall be glad to have the Council consider this matter and if they can see their way clear, to appoint one or more men to represent Michigan on this Advisory Committee, always with the clear understanding that its aim and purposes are as stated.

I thank you for the courtesy of the hearing.

The Council then, as per custom, devoted the remainder of the evening until 12 midnight to the discussion of organizational problems. The discussion was participated in by every person present.

Dr. Biddle stated: "There are ways of

educating the public that are proper and successful and there are ways that are improper and may hurt us. The public schools of Detroit are open to the profession for the proper education of the public in matters pertaining to scientific medicine. As President of the Detroit Board of Education I tender to you the use of the Detroit schools for that purpose."

Upon motion of Dr. Randall, supported by Dr. Seeley, the Chairman was directed to appoint a committee of three to draw up recommendations and instructions to our delegates to the A. M. A. The Chairman appointed Drs. Dodge, Walker and Jackson.

Moved by Dr. Seeley, supported by Dr. Randall, that the Council invite President Burton and the Committee of the University to join the Council in a conference to be held the following morning. That President Kay be delegated to convey this invitation. Carried.

SECOND SESSION

The Second Session of the Council was held in the auditorium of the Wayne County Medical Society Building on January 11th, 1922, at 9:00 A. M.

Present: Chairman DuBois, President Kay, Treasurer Welsh, Secretary-Editor, Councillors Walker, Randall, Stone, Seeley, Southworth, Holdsworth, Jackson, Clancy, Dodge.

Dr. Dodge, Chairman of the Publication Committee, submitted the following report:

Your Publication Committee has considered that portion of the Editor's report pertaining to the establishment of a new department in the Journal devoted to the education of the public in health matters and in matters reflecting the activities of the profession as concerns public welfare. In considering this subject the committee has reflected upon the recent experience in the Cancer Week campaign and believes that much can be learned from a study of that experience. It demonstrated that the general public is not only willing but anxious to receive instruction in specific questions concerning the unseen dangers lurking at the individual's door that may be dangerous to his comfort and well being. Your committee favors the adoption by the profession of any activities that promise to give helpful instruction to the public along health lines, either as concerns the prevention of contagious diseases, or as was done in the Cancer Week campaign in calling attention to the wisdom of having any suspicious swelling or lesion examined by a competent physician.

We therefore commend the practice of medical men grasping every opportunity to speak upon medical subjects before luncheon clubs, women's clubs, and on any other public occasion where they may be invited to do so. It is urged that in appearing before the public that no criticism will be voiced and above all things, no attacks shall be made upon cults in anyway whatever.

Your committee favors all measures that may be adopted to carry scientific information to the

public, whether that movement comes from work in the schools or through the appeal to the people of the state made by the Extension Course of the University of Michigan.

To further this work and to assist the various agencies that may thus be employed, your committee recommends that a department of the Journal be established containing articles prepared for popular consumption and that reprints of the same be transmitted to the newspapers of the state.

W. T. Dodge,
A. L. Seeley,
F. H. Holdsworth,
Committee.

Upon motion of Randall-Southworth, the Publication Committee report was adopted.

INSTRUCTION TO DELEGATES TO THE A. M. A.

Your special committee appointed to convey to our delegates to the A. M. A. certain instructions as to the position they shall take in the various administrative and legislative matters of that association, expresses its confidence in the fidelity and intelligence of the delegates and recommends that the Council instruct them to exercise in the future the same good judgment they have demonstrated in the past.

We recommend that they endeavor to bring about the abolition of sectional delegates in the House of Delegates and that they vote against extending the terms of Trustees beyond two years.

Dodge,
Jackson,
Walker,
Committee.

Upon motion of Southworth-Stone this report was adopted.

FINANCIAL COMMITTEE'S REPORT

Chairman Randall submitted the following report:

The audit of our finances as made by the certified accountants employed shows this year closed with a loss of \$3,673.17 and increased expenditures over receipts of \$1,189.35.

In our judgment this has not been due to any faults of management. It is, we believe, unwise to increase the annual dues to meet the increased annual expenses. Certain expenses that have been formerly ordered by the Council can, we believe, be dispensed with until receipts are equal to our disbursements.

We recommend that the payment of the expenses of the delegates to the A. M. A. be discontinued.

We recommend that Councillors bear their own expenses.

We recommend that the office of Associate Editor be discontinued.

We recommend the acceptance of the auditor's report.

H. E. Randall,
C. C. Clancy,
F. B. Walker,
Committee.

On motion of Southworth-Randall the report was adopted.

COMMITTEE ON COUNTY SOCIETY WORK

Chairman Southworth submitted the following report:

Your committee recommends that Councillors arrange to hold their District Councillors Meeting at an early date as possible.

Your committee recommends that the Secretary be directed to secure from each Councillor a written statement as to the condition of the societies in his district, the work done by the Councillor and any recommendations, and submit this compiled report to the Council at the annual meeting, in accordance with the provision in our by-laws.

We recommend that the suggestions made by the secretary in regard to our program for the annual meeting be adopted.

We recommend that the dates of June 7, 8 and 9 be selected as the time for holding our next annual meeting in Flint.

We recommend that the report of the medical legal committee be accepted and that we express our appreciation of the very efficient work of this committee. We recommend the re-election of F. B. Tibbals as chairman.

C. T. Southworth,
J. B. Jackson,
R. C. Stone,
Committee.

CONFERENCE WITH THE REPRESENTATIVES OF THE U. OF M.

President Burton of the University of Michigan, together with Drs. Huber, Cabot, Sondwald and Prof. Henderson, having arrived, the Council went into conference with representatives.

President Burton addressed the Council upon matters of interest to the University and the profession. He touched upon past incidents. He outlined future plans and pointed out how co-operative effort might be established to mutual profit. He conveyed a willingness to do all in his power to aid the profession in educating the public in regard to the benefits that may be derived from scientific medicine. He agreed to do all in his power to make available the Extension Lecturers and Bureau of the University. He emphasized that the University sought the co-operation and good will of the medical profession of Michigan and assured the Councillors that the University was not unmindful of the profession's interests and welfare. He emphatically stated that the University was opposed to State Medicine in any form. He invited the Council and the State Medical Society to join in a harmonious movement for the good of the people of Michigan.

There followed a frank, open discussion of the points touched upon by President Burton. Every person present participating.

Councillor Dodge moved, supported by Councillor Seeley, that the Council approve

the contemplated campaign of education as outlined by President Burton. Carried.

Councillor Dodge moved, supported by Councillor Seeley, that the following committee be created: President Kay, A. P. Biddle, J. B. Kennedy, G. E. Frothingham, Angus McLean, Chairman DuBois, Secretary-Editor F. C. Warnshuis.

That this committee co-operate with the committee from the University in instituting the educational campaign proposed.

That this committee be granted authority to act in behalf of the Society until our next annual meeting, to supervise the efforts undertaken and to become active along the lines outlined in the Secretary-Editor's annual report. Carried.

Moved by Councillor Randall, supported by Councillor Clancy that the Editor be instructed to sell space in the advertising section of the Journal for the insertion of professional cards. Carried.

Moved by Southworth and supported by several that F. C. Warnshuis be elected as Secretary-Editor for the ensuing year. Carried.

Moved by Holdsworth-Walker that D. Emmett Welsh be elected Treasurer. Carried.

Moved by Holdsworth-Stone that F. B. Tibbals be elected Chairman of the Medical Legal Committee. Carried.

Councillor Randall invited the Council to be his guest for dinner at the Annual Meeting in Flint. Accepted.

The Council adjourned at 3:45 P. M., having been in session from 9:00 A. M.

Attest: F. C. Warnshuis, Secretary.

REGENTS APPROVE

As we go to press we are in receipt of a telegram from President Burton, informing us that at a meeting of the Regents on January 27, the plan proposed by the President at the Council meeting was approved and authority given to institute it in co-operation with the State Society.

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

W. T. Dodge, Chairman **Big Rapids**
 A. L. Seeley **Mayville**
 J. M. McClurg **Bay City**

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., F. A. C. S.
 Grand Rapids, Mich.

GUY L. CONNOR, M. D., F. A. C. P.
 Associate Editor, Detroit.

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FEBRUARY, 1922

Editorials

THE UNIVERSITY OF MICHIGAN— A STATEMENT OF FUTURE ACTIVITY AND POLICY

One year ago a semblance of a conference was held in Ann Arbor. The parties participating were President Burton of the University and several hundred doctors representing the medical profession of Michigan. The result of that conference is a matter of record. Since then there has been a veritable horde of statements, rumors and criticisms. The discussion did not limit itself. Other states commented and at the Boston meeting of the A. M. A., more criticism was expressed. And so it continued throughout the year with frequently bitter charges and indictments finding their way into print in medical as well as lay editorial columns. The situation was extremely unpleasant and at times very tense.

At the meeting of our Council in Detroit, on January 11th, 1922, another conference was held. There were present President Burton, Dr. Hueber, Dr. Cabot, Dr. Sund-

wald and Professor Henderson, representing the University of Michigan and the Council, President Kay and a few other medical men representing the State Medical Society. We believe that this last conference, lasting some three hours and during which frankness was apparent, has, and will do much to clear the situation. No stenographic notes were taken. We shall, therefore, trust to our memory and record the essential statements and points.

President Burton stated:

1. That he had done much thinking and little talking since the conference of January, 1921.
2. That he came now with open frankness and with "all the cards on the table."
3. That he and his associates were ready and willing to go more than half way to clear up past differences and misunderstandings.
4. That they desired to obtain the good will and co-operation of the profession of Michigan.
5. That they would go as far as they could and would endeavor to secure the authority from the Board of Regents to bring about a co-operative movement that would educate the public of Michigan in regard to scientific medicine. That they would, if granted the authority, utilize and place at the profession's disposal the University Extension Bureau to aid in this movement.

6. That they wished to come in close contact with the profession, work with it and confer with it, that the two might better meet and solve the problems of scientific medicine.

7. That the University was not in favor of so-called State medicine. Neither would it lend its influence to movements seeking to establish state medicine or allied projects.

8. That the University desired frequent conferences, such as this, for better understanding. That if there should arise future difference or disagreements they might be freely discussed and mutually satisfactory policies adopted.

That was practically the position that President Burton assumed. He was very frank and cordial in his discussions and gave an impression of deep sincerity. He reiterated the desire to work together. He pledged allegiance to such a co-operative educational movement. That he was sincere cannot be questioned. That he meant what he said was apparent from his first declaration. Everyone was touched by the

attitude he assumed and the earnest desire he manifested for the adoption of a plan of combined activity in which, if any, the profession and not the University should derive the greatest profit.

President Burton was followed by Dr. Hugh Cabot, Dean of the Medical Department. Dr. Cabot spoke along the same lines as did President Burton. His most emphatic statement was that he was not in favor of State medicine; that he was opposed to it; that when accused of being otherwise, the accuser was placing him in a false light; that he desired to make the medical department of distinct value and assistance to the profession and people of Michigan.

Dr. Hueber stated that the University was eager and ready to work for the profession—"not only with, but for the profession."

Professor Henderson outlined how the Extension Bureau of the University might and would be utilized in the proposed campaign.

The result of the conference was the appointment of a committee composed of President Kay, Chairman of the Council Du Bois, J. B. Kennedy, G. E. Frothingham, Angus McLean, A. P. Biddle and the Secretary to co-operate with the President and Committee of the University and to institute the movement outlined.

It may be asserted and should be recognized that:

1. A solution of our differences with the University is now possible.
2. A common ground has been established.
3. A movement of mutual concern has been undertaken.

The word of honor has been given. We accept it and sincerely trust there will be no one to doubt its sincerity. We believe that the attitude any of us have manifested in the past must now be forgotten as bygones. The slate should be clean and, let us hope, kept clean. There is so much at stake that we cannot afford to engage in controversy among ourselves. Let us concern ourselves from now on with a determination to bring about the education of the people so that they may perceive the benefits of scientific medicine. If we do that we need give no concern to the cults.

We are certain that the results of this conference will be received with cordial approval by our members. We hope to be able to impart a report of the first work of

this Committee in our next issue. The University Medical Department and the State Medical Society are now united for constructive labor. Let us all bend to the task.

IONIA TYPHOID EPIDEMIC AND WATER SUPPLY

By Dr. Joseph Johns, Health Officer

It was in 1872 that Michigan organized public health work. The State had a typhoid fever death rate of 52.2 per 1,000. In 1900 the typhoid death rate was 36.5. In 1910 it was 23.7. Nine months report of the State Department of Health of 1921, 6.8. This lowered death rate of marked degree being due to pure drinking water supplies, chemical treatment and filtering water, Pasteurizing of milk and more general cleanliness and public education.

The first typhoid case that appeared in Ionia was June 29th, 1921. The patient died two days after the report came to my office. We did not know how this patient became infected. Not being a permanent resident of the city, it was thought he might have brought it in from out the city. Two cases of typhoid were reported in August. The epidemic took its big start in the first week of September and lasted until Ionia chlorinated the water. On September 29th we had 21 cases of typhoid scattered through every street in the city. The survey of the city water and milk were taken up by the health committee. Ionia, with a population of 7,500 to 8,000, is located in the southern part of the State on the bank of Grand River. It obtains its water supply from flowing wells of 5 to 15 feet in depth, the character of the soil is black muck, low ground from three sides, in fact it was a frog pond many years ago. West and north streets are high and the residents have their dry toilets and chicken coops. The pumping station and reservoirs are close to the wells, a small creek runs east of the ground. When we found unsanitary conditions around the city water supply, which has been condemned by the State Sanitary Engineer, Edward D. Rich, who, over five years ago warned the city officers of a coming epidemic—indications pointed to the infection coming from the city water. In about one week's time 27 samples of water were taken from city fountains, schools, homes of typhoid cases, pumping station, city and private wells and were sent to the State laboratory for bacteriological examination.

In the meantime we warned the public

to boil the water and milk. Sixteen of 27 samples of water were reported dangerously contaminated and unsafe for drinking purposes. These reports were personally made to the city health committee. The Mayor of the city being absent, no action was taken to chlorinate the city water, which I was advocating strongly. However, the committee suggested that the City Clerk investigate the chlorine apparatus and its cost. The matter stood at this point until September 21st; at that time I went to Lansing for further information concerning the city water. The State Sanitary Engineer, E. D. Rich, informed me that our city water was the cause of the epidemic and also sent a letter to the city council as follows:

Sept. 22nd, 1921.

Mayor and City Council,
Ionia, Michigan,
Gentlemen:

The attention of your officials has been called to the danger to the public health arising from your present water supply on several occasions covering a period of at least five years. We have recommended that another supply be developed in a safer location, that is to say, further away from inhabited areas.

As an immediate safeguard to the public health we believe that it is absolutely essential that chlorination of your present supply begin at once. This opinion is based upon experience gathered from many cities in the state and especially here in Lansing, where a very serious epidemic of dysentery was caused by conditions which were far safer than those that prevail in Ionia.

The chlorination of water supplies is a standard process capable of efficient regulation and when so operated is reliable in its effects and unobjectionable to the inhabitants, particularly in the case of ground water supplies.

We trust you will give this your immediate attention to the end that chlorination may be established at Ionia within the next few weeks.

Respectfully submitted,

Edward D. Rich,
State Sanitary Engineer.

On 23rd of September the Mayor called the city council and a hot discussion of chlorinating city water was resumed. Some of the members were doubtful from the State laboratory reports and the Mayor ordered four samples of water to be sent to a Grand Rapids laboratory for examination; also someone ordered an out-of-town physician to come in and examine typhoid cases.

The report from the Grand Rapids laboratory came in stating that two out of four specimens were dangerously contaminated. Also the out-of-town physician confirmed the diagnosis of the local physicians, except one case, which later proved to be typhoid by finding *Bacillus typhosus* in the stool. When all reports were submitted to the Mayor of the city, he then believed that the city water was the cause of the epidemic. Our Mayor, being not only an excellent business man and financier, but also a mechanic, with his factory engineer, C. C. Chamberlain, invented a home made chlorine apparatus. Since October we are pumping daily 8 to 12 pounds of liquid chlorine in 80,000 to 100,000 gallons of water, and the epidemic of typhoid disappeared in the middle of October.

The survey of the city milk supply was under investigation of Dr. J. P. Marker, County Commissioner. All milk stations, producers and distributors were under observation. Milk samples and stools of milk companies' employes were sent to the State laboratory for examination, careful inquiry of typhoid patients' milk supply investigated, but all these efforts proved that the epidemic was not milk-born. Still, orders were issued to every milk supply house to pasteurize their milk and small producers were stopped from selling their milk to the public.

Total typhoid cases in Ionia epidemic was 21 with one death. Many people were vaccinated and no cases developed among the vaccinated persons. No one who had been immunized previous to the epidemic contracted typhoid.

THE REFERENDUM ON USE OF ALCOHOL

The Journal of the American Medical Association conducted this referendum. The results are published in the issue of January 21, 1922. We extract the following comments and reports:

Questionnaires were sent to 53,900 physicians, representing 37 per cent of the physicians of the United States, and 31,115, or 58 per cent, were returned.

Of physicians indicating form of practice, 25,889, or 83 per cent, were general practitioners; 2,401 were engaged in the surgical specialties, and 2,825 in the nonsurgical specialties.

Do you regard whisky as a necessary therapeutic agent in the practice of medicine?

The total vote in all states whether or not whisky was necessary in the treatment of disease

was 30,843; 15,625, or 51 per cent, answered yes, and 15,218, or 49 per cent, answered no.

Do you regard beer as a necessary therapeutic agent in the practice of medicine?

The total number of votes cast for beer was 30,597, and of these 22,663, or 74 per cent, were negative, and 7,934, or 26 per cent, were affirmative.

Do you regard wine as a necessary therapeutic agent in the practice of medicine?

The vote on wine was: no, 20,648, or 68 per cent, and yes, 9,803, or 32 per cent.

COMMENT ON QUESTIONS AS TO NECESSITY OF WHISKY, BEER AND WINE

The vote in twenty states was affirmative for whisky, while in twenty-nine the majority was negative. In all the states, however, the majority vote in regard to beer and wine was negative. The vote in the larger cities and rural communities is interesting. In regard to the necessity of whisky as a therapeutic agent, 58 per cent of the vote in cities is in the affirmative, while of the vote in the rural districts, 54 per cent is in the negative. For wine and beer, however, the majority in both cities and rural districts is decidedly in the negative, the percentage of negative votes being higher in the rural districts.

A table shows the vote on whisky, beer and wine by districts. The two districts comprising, respectively, the North Atlantic and the South Atlantic states give a majority vote affirming that whisky is essential as a therapeutic agent, while in the three districts comprising, respectively, the North Central, South Central and Western states, the majority vote is in the negative. In all districts alike the majority vote in regard to beer and wine is decidedly in the negative.

In the fifty large cities there was a total of 8,855 votes on the question as to the necessity of whisky as a therapeutic agent. Of these, 5,320, or 60 per cent, were that whisky was necessary, while 3,535 were in the negative. In regard to beer, however, the vote was to the contrary, a total of 5,903 voting that it was not necessary, while only 2,854, or 33 per cent, voted that it was necessary. Of wine also the majority vote was negative, there being 4,939, or 57 per cent, negative, while 3,782, or 43 per cent, were affirmative.

Tabulation of returns from Michigan gives the following expression:

Number of physicians.....	4,593
Questionnaires sent	1,751
Questionnaires returned.....	1,036
Percentage of returns.....	59
General practitioners.....	863
Surgeons	77
Specialists	90

Do you regard whisky as a necessary therapeutic agent in the practice of medicine?

Yes	470
No	554

Do you regard beer as a necessary therapeutic agent in the practice of medicine?

Yes	247
No	769

Do you regard wine as a necessary therapeutic agent in the practice of medicine?

Yes	273
No	739

Have instances occurred in your own practice in which unnecessary suffering or death has resulted from the enforcement of prohibition laws?

Yes	245
No	756

How many times have you found it advisable to prescribe these liquors in a month?

Whisky: Number of physicians stating times advisable.....	310
Number of physicians stating no times advisable	576
Beer: Number of physicians stating times advisable.....	104
Number of physicians stating no times advisable	690
Wine: Number of physicians stating times advisable.....	121
Number of physicians stating no times advisable	676

Do you hold a federal permit?

Yes	161
No	577

The present regulations limit the number of prescriptions to 100 in three months. In your opinion, should there be any limit to the number of prescriptions for alcoholic liquors a physician may write?

Yes (limit not specified).....	184
Restricted absolutely.....	119
1 to 50 prescriptions.....	126
51 to 100 prescriptions.....	183
More than 100 prescriptions.....	16
Total	628
No restriction.....	374

In your opinion, should physicians be restricted in prescribing whisky, beer and wine?

Yes	633
No	362

The Journal of the A. M. A. makes the following summarization:

1. Physicians of the United States are almost equally divided on the question as to whether whisky is a necessary therapeutic agent in the practice of medicine, about 26 per cent consider beer necessary; about 22 per cent consider wine necessary.

2. More physicians of cities over 50,000 in population consider alcoholic beverages necessary than do those in smaller cities and in rural communities.

3. Physicians of the North Atlantic and South Atlantic states are more favorable to the therapeutic use of whisky than are those in the remainder of the country.

4. The large majority of physicians who consider whisky necessary believe it valuable in pneumonia, influenza and other acute infectious diseases.

5. A considerable proportion of those who consider whisky of value utilize it in the treatment of diseases incident to old age and general debility, in convalescence, diabetes, heart failure and shock.

6. Beer is used therapeutically chiefly in lactation, convalescence, old age, and for the treatment of debility, dyspepsia and anemia.

7. Wine is used chiefly for the same conditions as is beer, but also as a substitute for whisky.

8. About one-fourth of the physicians stated that they had seen instances of unnecessary suffering or death which they attributed to the en-

enforcement of prohibition laws, including cases due to whisky of illicit manufacture or of poor quality.

9. Many physicians are against restriction in either the drugs prescribed, in the number of prescriptions or in the amount of drugs prescribed.

10. Only 2 per cent of the physicians replying believed that physicians should be permitted to write more than 100 prescriptions in three months.

11. Many physicians say that limitation of the number of prescriptions does not provide for epidemics and encourages the use of the limit by many.

12. Many physicians say that limitation to a definite minimum quantity of alcoholic beverages over certain periods is a serious interference with treatment of conditions in which greater quantities are required.

13. A large majority of physicians believe that some regulation or restriction should be placed on the prescribing of alcoholic liquors.

14. A large number of physicians favor such regulations as are under the Harrison Narcotic Law.

15. The experience of physicians indicates that certain state laws are too stringent relative to the provision of pure alcohol for laboratory and surgical purposes.

16. Many physicians have not informed themselves as to their privileges under the present regulations relative to the securing of pure alcohol or of whisky for office use.

17. The lack of uniformity in state and federal laws complicates the formulation of methods for adequately solving the problem of the medicinal supply of alcoholic liquors.

18. Physicians through their practice have observed extensive violations of the present prohibition regulations in their communities.

19. The majority of physicians would welcome a change in prohibition regulations which would take from them the burden of distribution of alcoholic liquors.

20. Many physicians believe that the provision of whisky and alcohol for medicinal purposes by the government in sealed packages at a fixed price with control of prescriptions similar to that of the Harrison Narcotic Law will solve the problem of relation of physicians to the enforcement of prohibition.

The survey is not only of interest but also of value. We have had many conflicting statements regarding the profession's opinion. Resolutions have been passed by several organizations. At no time has there been recorded the opinion of any considerable number of doctors. This survey is the first impressive record of the physician's attitude. We refer our readers to the complete tabulation of the referendum for a more comprehensive study of the result.

DIVERSIFIED READING

Medical literature in the form of monographs, compilations, texts, reviews and journals is without end. Each week brings to the desk of every progressive doctor a voluminous amount of reading matter. Some is good, considerable of it is mediocre and

quite a large part of it is a waste of paper and ink. Much time is spent in selecting from the supply that which is of real value and imparts assistance in solving the problems of present day practice. It is only after one has gained an insight that comes after several years of persistent wading through the books and magazines that are received that one develops and acquires the knack of discrimination. And still our work is such that one is compelled to do voluminous reading to remain abreast of the progress that is recorded. The time consumed is far greater than one usually comprehends. For the active man there remains but little opportunity to wander through the fields of literary compositions that are not concerned with our own professional work and science. The result is that we as a profession are grossly ignorant, and as far as modern literature is concerned, we are woefully illiterate.

This illiteracy is also partly due to the habits of the people as a whole. Americans are a newspaper reading class. We hasten through our morning and evening papers, cast them aside, and rarely take time to reflect or formulate personal opinions. Usually we are contented to accept the editorial page comments as reflecting our own conclusions and sentiments. We thereby cultivate our illiteracy.

Someone has said that the true virtues of reading are memory, analysis and development. We undervalue memory. We read, and completing the magazine, article or text, we cast it aside and promptly forget. Naturally we lose and forego the profit that might be ours. We do not analyze that which we read, we do not give thought to theme, scheme or premise, we often swallow whole the author's conclusion and do not exercise our own powers of judgment. Thereby we neglect to acquire that benefit from reading. With such habits there can be but little mental development and the time spent in reading is producing but a small part of the benefit that might be derived did we memorize more, acquire the habit of analysis and by application exhibit mental development.

We are compelled to read the good in our medical literature and all that is good can usually be found in four or five journals. As collateral to our journal reading we have the modern text books which must not be neglected. With a definite planning of time to consume that class of literature there should remain in every man's daily program a like definite planning of time for the reading of modern literature. The se-

lection of that literature must by necessity be carefully thought out.

We cannot hope to outline a course or plan of diversified reading that will meet the taste or inclination of every individual. That is a plan that must be solved by each individual. There is such an abundance of literature and reading material that one must select from the mass of books that accord with his scheme of life. After that has been done the profit that will come to you will be in the degree that you reflect upon and memorize that which you read and take unto yourself that which will be manifested in the development of your personality and ability.

We advance these reflections to seek to stimulate you to overcome a professional tendency to illiteracy.

THE MICHIGAN STATE MEDICAL SOCIETY AND THE MEDICAL SCHOOL OF THE UNIVER- SITY OF MICHIGAN

During the past years, and especially through this last year, rumors and mis-statements have appeared in the medical as well as the lay press. They are concerned with Compulsory Health Insurance, State Medicine, Socialization of Medicine, administrative policies of the Medical School of the University of Michigan and the antagonism of the medical profession of Michigan.

On January 11, 1922, in Detroit, the Council of the Michigan State Medical Society and President Burton and a committee of the University of Michigan met in conference. As a result of that conference we desire to make the following announcements to the profession and public of this country over our signatures.

1. A basis of mutual understanding has been reached and past apparent differences have been obliterated.

2. The University and its Medical School are not in favor of "State Medicine," so called, nor do they endorse or subscribe to those policies or movements that have for their object the establishment of any such forms for the practice of medicine.

3. Doctor Hugh Cabot, Dean of the Medical School, has been and is opposed to "State Medicine," so-called. He desires his opposition to be known to the entire profession and that in the past he has been un-

justly accused of being favorable to that type of socialization of medical practice.

4. In response to the invitations of the President and Council of the Michigan Medical Society, the University of Michigan through its Extension Division and Medical School has expressed its desire and readiness to co-operate with the profession of Michigan in a movement to educate the public in regard to scientific medicine and the benefits to be derived therefrom.

5. The Medical School is concerned chiefly with the education of students in scientific medicine, with the promotion of medical research, and with co-operation with the profession in the advancement of scientific medicine in Michigan.

To these ends have we pledged ourselves and through duly appointed representatives we propose to enter into a campaign of concerted and co-operative activity. Coincident with this action we believe that the profession at large should be acquainted with our avowed attitude. We therefore issue this statement at this time for the explicit purpose of discrediting false assertions of the past and to make clear for the future the policies and purposes of the principals concerned in this announcement.

The Michigan State Medical Society,

W. J. Kay, President.

W. J. DuBois, Chairman of the Council.

The University of Michigan,

Marion L. Burton, President.

Hugh Cabot, Dean of the Medical School.

Editorial Comments

Dr. L. O. Howard of Washington, in his address as retiring president of the American Association for Advancement of Science, in Toronto, December 27, 1921, issued a declaration of war against the insect peril.

If not checked by force, insects will rob man of his food by destroying his crops, will eat away the clothes from his back, and the roof from over his head, and will even murder him with disease germs.

The destruction of life and property due to insects is greater than due to all the armies of the Great War. There is no armistice to this greater war. It is a fight to death between the human and the minute, often microscopic foes of the insect world.

Man is the dominant type on this terrestrial body and he has overcome most opposing animate forces. He has subdued or turned to his own use nearly all kinds of living creatures. There still remain, however, the bacteria and protozoa that carry disease, and the enormous forces of injurious insects which attack him from every point and which constitute today his greatest rival in control of nature. They threaten his life daily. They shorten his food supplies both in the crops while they are growing and in such supplies after they are harvested and stored.

In many ways they are better fitted for exis-

tence on this earth than he is. They constitute a much older geological type and it is a type which has persisted for countless years before he made his appearance. This persistence has been due to characteristics which he does not possess and can not acquire. Rapidity of multiplication, power of concealment, a defensive armor and many other factors contribute to this persistence.

It will be necessary for the human species to bring his great group of insects under control and to do this will demand the services of skilled biologists—thousands of them.

Dr. Howard emphasized the tremendous necessity for the most intense work by the very best minds on the problem of overcoming and controlling our strongest rivals on this planet. He called upon the colleges to form training camps for field work in this campaign.

MAJORITY OF PRISON INMATES HAVE MENTAL DISEASES—DR. JACOBY

"One-half to two-thirds of the inmates in prisons have mental diseases," declared Dr. A. L. Jacoby, who spoke on "Crime from the Standpoint of a Psychiatrist," before the members of Flint Sorosis.

"The problem of dealing with crime is one of classification," continued Dr. Jacoby, "and there should be better use of the organizations existing to prevent crime. The erection of a psychopathic clinic in each city would be a great aid to the reduction of crime and would lessen the congestion in our penal institutions.

"There is no more arbitrary normal for conduct than there is for health; we must judge conduct by the average conduct, and there should be specialized treatment for crime as there is for illness. It is just as bad to hold a criminal in prison longer than is necessary as it is to not give a criminal just punishment for his crime, for after a certain period in prison, according to the particular case of the criminal, the punishment becomes uneffective, and he should be either placed in society again and given trial, or placed in institutions established for persons of his kind. Such institutions would examine the subject at the time of his crime, would judge his mental condition and advise correct treatment.

"In this way the prisons would not be unnecessarily overcrowded and society would be free, as far as possible, from those objectionable people. It is up to us now to determine whether we must begin to build new institutions for these psychopathic patients, or whether we shall manage our present ones more economically."

Dr. Jacoby demonstrated his remarks with charts showing the records of several criminal cases and he explained that in each instance psychopathic treatment and examination would have prevented the long record of crime and disease.

This issue contains the minutes of the mid-winter meeting of the Council. We urge that you read these proceedings. We feel that it was one of the most important meetings that the Council has held in many years. Further, that definite plans were developed that will enable the organization to institute a campaign of activity that will go far in acquitting ourselves of the responsibilities that we owe to the public in regard to the problems that confront us all. In undertaking this work its success depends wholly upon the cooperation of our members. It is an activity that does not rest solely upon the Council, your officers

or any committees for its consummation. There must be a rallying of all our members and we plead that you at once become active in your local county society.

From time to time the query is advanced as to why our society does not add the indemnity feature to our medical protection. This was again discussed at the Council meeting. To do so the society would have to go into the insurance business and comply with the insurance laws of the state. This entails the formation of a separate corporation, the issuance of stock and the depositing with the insurance commissioner of at least \$50,000 as a guarantee fund. In addition there would be required an expert administrative officer at a whole time salary and this with office expenses and equipment would raise the premium beyond what we are now called upon to pay to the Medical Protective Company. After the presentation of these and other details the Council was of the opinion that it would not be advisable to undertake such an added feature.

The Council directed that the editor sell space in the advertising section of the Journal for the publication of professional cards. This is in compliance with practices that are in vogue in other state journals and has gained considerable popularity. The need for doing so is further made imperative by the necessity of securing greater advertising income for our publication. The expense of publication has increased over four hundred per cent during the past five years. There is very little chance of any marked decrease in cost. If we are to maintain our present standard of publication or improve it we must have additional income. If this is not obtained we must then limit our issues and thereby deprive our members of the value of their official organ. The Council, therefore, after careful deliberation, determined upon the above plan. These professional announcement cards serve a definite purpose and enable our members to obtain specific information regarding the practices of their conferees in different parts of the state. The card will be limited to: name, specialty, office location, office hours, telephones and city. We will be pleased to receive applications for this space. Please refer to our advertising section where illustrations of this type of advertising may be found.

Have you paid your 1922 dues? If not, please remit to your county secretary today. Do not make it necessary for him to dun you for them. Write your check now.

We have for some time been impressed by the splendid Bulletin published and issued each week by the Wayne County Medical Society. We see the bulletins issued by the larger medical societies of the country. The Wayne County Bulletin is their equal in every respect. Our congratulations are proffered to the editor for his splendid work.

June 7, 8 and 9. Mark these dates. They are the dates for our next annual meeting in Flint. From the preparations that have been started by the Flint doctors we can safely predict a splendid meeting.

County Society News Notes contains the reports of the activities and meetings of our County So-

ciety. Each issue contains very interesting reports. Under the Bay County news we are publishing the president's annual address. It is worth reading and reflecting upon.

Deaths

Dr. James P. Suiter of Hadley died November 26, 1921, at the age of 81 years. He was a graduate of the Detroit Medical College in 1872. The doctor was a veteran of the Civil War.

Dr. Charles B. Morrell of Benton Harbor (Pulte Medical College of Cincinnati, 1882) died December 21, 1921.

Dr. Ansley Smith, health officer of Royal Oak, died suddenly January 11, 1922. The doctor was born in 1855 and had practiced medicine in Detroit and Royal Oak for many years. He graduated from the Michigan College of Medicine in 1884.

Dr. Richard Black Cummings was born in Hamilton, Ontario, in 1860 and died in Wayne, Michigan, December 20, 1921. He graduated from the New York University Medical College in 1885. For the last twenty-eight years the doctor has practiced in Wayne. He was a member of the Wayne County Medical Society, the Michigan State Medical Society and the American Medical Association. He was also a member of the Masonic Fraternity. Dr. Cummings was a former president of the Wayne Village School Board and the Village Council of Wayne. He is survived by his widow, two sisters, Miss Alice Cummings of Hamilton and Professor Louisa Cummings of Vassar College, and a brother, Dr. James Cummings of Toronto.

Dr. A. W. Adams died Sunday, January 1, 1922. He was confined to his bed about two months. The cause of death was Bright's disease. He was born in Watertown, N. Y., in January, 1848, and lacked three weeks of being 74.

When 12 years old he moved with his parents to Brighton, Ont. Here he attended a collegiate school and so prepared that when in 1869, the family moved to Charlotte and his father went into business, he entered the University of Michigan, where he graduated from the literary department in 1870 and the medical department in 1872.

Dr. Adams went at once to Bellevue Hospital, New York City, where he graduated in 1873, when he immediately began practice in Kalamno in connection with Dr. Cessna, whose daughter he married the same year. After 10 years' practice in Kalamno he moved to Bellevue, where he was active both as a physician and business man for 38 years.

Dr. Adams is survived by his daughter, Mrs. Nellie Bender of Ann Arbor.

County Society News

BAY COUNTY

The regular meeting of the Bay County Society was held at the home of Dr. V. L. Tupper, who entertained with a sumptuous 6 o'clock dinner, Monday, January 16th.

Mr. John Shaw, Trust Officer of the First National Bank, gave a most enlightening talk on "Investments." After the talk the various mem-

bers gave their investment experiences, good and bad, and the conclusions drawn were especially interesting to the younger physicians.

Dr. L. C. Abbott of Ann Arbor will address the next meeting, January 26th, on "Fractures of the Femur."

L. FERNALD FOSTER,
Secretary.

ANNUAL ADDRESS, 1921,

Society, according to Webster's dictionary denotes good fellowship, a partnership, persons united collectively by a common band for a common purpose.

Not many years ago the sole object in medical societies was to advance the standard of the practice of medicine. Now, however, to comply with modern conditions we are using it to advance the standard of ethics; we are taking an active interest in medical legislation and politics, we are making recommendations and offering advice to our city government in questions of sanitation, water filtration, disposal plants, etc.

It was only a few years ago that if a member of the family became ill or injured the first thought of the mother was the family doctor. At the present time, however, if a similar condition occurs, unless the condition appears grave—a chiropractor, a Christian Scientist, a quack or even an embryo clerk from the corner drug store is quite as likely to receive the call. This condition—this loss of confidence in the medical profession—demands treatment. It is our duty to make the diagnosis and administer the cure.

The expense of the medical man is practically as high at the present time as it was at any period of the world war. Our fee schedule has been adjusted to comply with this added expense. Although we are passing through a period of financial depression it is to our interests to maintain the present fee schedule so far as possible. Our financial panic will be a matter of history in a few months then we will have occasion to congratulate ourselves that we are collecting reasonable fees for our work. Once our fee schedule is revised downward it would be an embarrassing problem to raise again. We would probably be obliged to wait until the next great war and as the peace conference have agreed there shall be no more wars we would likely have a lengthy wait coming.

The year 1921 has presented very serious problems for the consideration of the profession. The problem of compulsory health insurance has again threatened the profession; the chiropractor was almost successful in having his work endorsed by our state legislature; it has witnessed the state department of health continue in the practice of medicine. The year 1921 will be remembered by future medical men as the year in which our state university entered the private practice of medicine on a large scale. This year will be recalled as the meeting place of our state medical society and our appropriate observance of a week set apart for the consideration of the cancer problem.

During the last session of our state legislature a bill was proposed entitled "An act to regulate the practice of Chiropractic." From the title of the bill it leaves the impression that it would restrict or limit the privileges of chiropractors, and for that reason our legislators were very willing and prompt to vote for it. The majority of our state senators and representatives did not even know that this bill was being pushed by the

chiropractors. The fact that the bill in its original form was passed almost unanimously by both the house and senate and was even favored by no less a personage than Governor Grosbeck, leaves little doubt that they had a very strong lobby. By the prompt action of President McLean and our county secretaries the bill was finally killed in its amended form, thanks to the prompt action of our state and county societies.

There are now in the State of Michigan nearly four hundred chiropractors making diagnoses and adjusting vertebrae on the theory that "all the ills that flesh is heir to" are caused by the subluxation of one or more of the bony sections that compose the spinal column.

They have a national association called the Universal Chiropractors Association. They have members practicing the subluxation system in every state in the union. Their members contribute to a legislative fund annually to lobby our state legislatures. They have already been legalized to practice in the states of Iowa, Montana and Nevada. I quote the following from the Detroit Free Press concerning their last state meeting in October, 1921. "The Michigan association was pledged the support of the continental organization in the fight to provide the licensing of Michigan chiropractors in this state. It is understood that several thousand dollars has already been subscribed both locally and nationally toward the campaign to enact the necessary state legislation. We intend to fight to he finish the arbitrary stand taken by the Michigan State Board of Registration in medicine through the failure of the recent session of the legislature to recognize chiropractic," declared Mr. Geiselman, president of their Michigan organization. Mr. Geiselman was informed by Dr. B. D. Harrison that our fight, the medical fight, would be continued until every chiropractor in Michigan was put out of business.

As a sample of radical post bellum bills that have been presented I might mention the child welfare bill, which was introduced at Washington this year. The vast number of people this bill was intended to employ called for an annual appropriation of \$4,000,000. The proponents of this bill, who selected themselves to occupy chairs in the child welfare bureau, were composed of nine women of whom only one was ever married. The Southwestern Medical Association and the profession all over the United States opposed the bill. If the people demand that legislation of this kind be enacted why not employ on this bureau only physicians and registered nurses. A hundred and fifty thousand physicians scattered all over the United States, skilled in all the learning which has been acquired since the days of Hippocrates, are available. To assist this army of physicians there are 200,000 trained nurses who have been specially taught to care for the sick. Senator Reed, in opposing this bill, described the mental attitude of our masses for radical laws when he said, "The tempest of war disturbs the intellectual world, unsettles old methods of thought, destroys the ancient anchorages, and brings to the fore every impracticable scheme and wild experiment conceivable by the war fevered brain." He says, "Having just emerged from the greatest war we must expect to find in its lap a motley litter of abnormal and deformed ideas." This bill became a law during the past month, but the annual appropriation was finally reduced from \$4,000,000 to \$1,250,000.

For the past 20 years or more two plans or

systems have been used for the instruction of medical students. The first plan or part time plan has been operative since the first medical school came into existence. In recent years plan No. 2, or the full time plan, has been in order in a few of our medical colleges. The principal argument against the full time plan is that it develops the science of medical practice without developing the art of the practice of medicine.

Recently our State University medical faculty announced a third plan or system of conducting the medical department. Their plan as announced formally to the profession of our state, last January, was to increase greatly the capacity of the university hospital. Their plan called for an extra appropriation from our state treasury to increase the capacity of our state university hospital from 400 beds to a capacity of 1,200. The appropriation was allowed and the work of tripling the capacity of the hospital is now well under way. The fees which they expect to collect from these pay patients, and these patients must come from the practice of the regular profession of our state, will be deposited in a medical faculty fund from which a dividend will be declared at the end of each year for the medical faculty in addition to their regular salary from the state. An argument the medical faculty used to have the hospital greatly increased, was that there were not sufficient accommodations for the hundreds who came there for treatment. If through the prestige of the university, patients continue to be attracted there in increasingly large numbers, there is no reason why in a matter of time the hospital will not be increased to one from 3,000 to 5,000 bed capacity. The present plan is to be deplored, as it tends to antagonize the profession, and the university with this plan in force will not hold the respect and co-operation of the profession of the state that the medical department of our state university should possess.

By the request of the National Society for the Control of Cancer, the week of October 30 to November 5 was observed as Cancer Week. Dr. Grosjean conducted the campaign in this district, being appointed by Dr. R. Peterson, state chairman. Of the five topics discussed, No. 1 elicited the larger part of the discussion, "The present day conception as to the cause of cancer."

Among the immediate and remote, the exciting and predisposing causes that were mentioned, much stress was placed on the extreme liability of epithelioma of the lips developing from the over-indulgence in the use of receptacles known as clay and corn cob pipes. One of our Scotch members, Dr. Baird, was especially warned of the daily dangers he is undergoing.

Cancer Week may be of little benefit as far as lectures to the laity are concerned but it may stimulate study and experimentation to such an extent that it may lead to the determination of the specific cause of malignancy.

I might say that Dr. Gustin, our health officer, very confidentially requested that I say nothing about his hospital on Columbus Avenue. I had intended to relate in this article about how our health officer christened the new institution, how he broke the bottle of champagne over the bow of the ship, etc., having a trusted assistant, Dr. Keho, to carefully hold an earthen receptacle underneath, that not a single minnim of the sparkling liquid might escape. However, I doubt very seriously if there is or ever was a hospital on Columbus Avenue. When I was as young as Dr. Gustin is at present, they called a public building where smallpox and pediculous cases

were accumulated or detained just an ordinary "pest house."

I had intended to report how our board of health developed such efficiency that contagion was entirely wiped out of Bay City and the pest house became a white elephant.

However, since I promised our health officer that I would be hospitable toward him and say nothing about hospitals, I will comply with his wishes and turn over a page.

When our world war drew the United States into the conflict our State Board of Health was renamed the State Department of Health. And with this change in name the state board changed its policy and branches out in its work to such an extent that we have good reasons to believe the state board are going out of their province. First we might ask what are the duties of a state department of health? For what are state departments of health organized? My impression has always been that they were conducted for or sustained for the purpose of prophylaxis, sanitation and vital statistics. From observations the past few years there is no doubt that they have overstepped their original intentions and actually entered seriously into the practice of medicine.

In Detroit, the board of health G. U. Clinic have the largest G. U. practice in the city. They have free eye, ear, nose and throat clinics, free baby clinics, free tbc., free surgical and even free obstetrical clinics. This indicates that it is the intention of our boards of health to actually practice medicine, surgery and obstetrics.

If the war was an excuse for our department of health entering the practice of medicine, if it is true that we have formally signed a treaty of peace with Germany, the last of the warring nations, and we are now at peace with all the peoples of the world, then we have positive proof that the war is over and that this would be an appropriate time for our state department of health to assist reconstruction, and return to and confine their attention to preventive medicine and vital statistics.

At our second meeting of April, 1920, we were informed that our State Society was in the market for a host to entertain it in 1921. On that occasion a resolution was adopted requesting our delegates to use their influence at the Kazoo meeting to bring the 1921 annual to Bay City.

Dr. Morton Gallagher acted as our envoy extraordinary and it was by his diplomacy and knowledge of politics, which he had acquired in his campaigns for the school board, that we were privileged to entertain the State Society for the fourth time.

At our first meeting in February the opening guns were fired when Dr. Warnshuis addressed our society and outlined plans for the fifty-sixth annual meeting.

The efficient and thorough manner in which our committee performed its duties has set a fast pace for future hosts of our state meetings to follow. The president of the Genesee County Medical Society informed me that in his opinion the State Society was never housed, dined, entertained or even wine in a more agreeable manner. The Flint members took special pains to learn our system and will attempt to duplicate in entertaining the State Society the coming year.

In football the leading figure on the rules committee is Walter Camp. He is considered an expert authority on interpreting the rules of the gridiron game. During each season the rooters all over the country are looking forward to his

selections for the all-American team. So in baseball first all-American nines are proposed. Muggsy McGraw with his New York Giants may have a great baseball nine, but for efficiency and service he wouldn't have a thing on the Bay County Medic nine—the nine chairmen who managed our nine committees for 1921.

The reception of our guests was carried out in a systematic manner under the management of Dr. Urmston, chairman of the reception committee. The schedule made out by Dr. Urmston, whereby our members worked in teams both at the trains and registration booth, proved very satisfactory.

The success of our regular meetings this year—as in every year—was due largely to our program committee. This committee was composed of Dr. Slattery, chairman, Drs. Stewart, Dummond, Foster and Zarembo. Only those who have served on program committees know the sacrifice of time and work it requires to produce the attractions they have provided for us this year, and their work is deserving of much praise and commendation.

Very complimentary opinions were expressed by the pleasing way in which the visiting ladies were entertained by our committee composed of Dr. Mary Williams, chairman, Drs. Ely and V. L. Tupper. Dr. Williams spent the major portion of her time for weeks before our guests arrived in perfecting plans for the entertainment of the ladies at the theatre, for a luncheon at the country club and an auto ride about the city. Dr. Williams was of great assistance to the men's entertainment committee in assisting the preparations for the banquet. When the question of auto rides about the city came up for consideration the committee decided that ordinary cars like the general practitioner drives would be inappropriate to use, on the theory that the best are none too good for our visiting ladies, Dr. Williams put the auto proposition up to Dr. Tupper. The doctor replied that he could furnish fifty cars similar to the one he drives for the auto ride. How many of county societies have members who can furnish fifty Cadillacs at a moment's notice? On account of the fact that the number of visiting ladies was smaller than anticipated, only twelve to fifteen of these cars could be used. This offer of Dr. Tupper's should be taken advantage of to the fullest extent. It would be uncourteous of our society to refuse the smallest fraction of such hospitality. Our members should keep Dr. Tupper's telephone number in mind day and night. Quite frequently our car needs a coat of paint, we discover a flat tire, or some other organism infects the motor—in either case call Bell 652 and request Dr. Tupper to send out one of those Cadillacs he had over from the state meeting.

The state meeting was on in regulation style when our entertainment committee put on the smoker in the B. of C. auditorium. The musical selections, boxing bouts and other features of the entertainment were very appropriate and instilled pep and enthusiasm into all the sessions of the state meeting. The banquet and program at the armory was pleasing to our visitors and a real credit to the committee consisting of Dr. Perkins, chairman, Drs. Hauxhorst, Crance, Gallagher, Fred Baird and J. W. Gustin.

Our exhibit committee conducted the department in an up-to-date business manner. The members of this committee were Dr. Loud, chairman, Drs. Stone, Huckins and Trumble. Dr. Loud introduced an innovation in the exhibit department by requiring cash in advance before a

reservation could be made and the collections were 100 per cent. His business ideas might well be copied by our members.

Our printing committee, consisting of Dr. S. L. Ballard, chairman, Drs. McEwan, Lawrence and Bergstrom, lost no time in leaving the contracts for badges, signs and programs and the same were very promptly placed and distributed in appropriate places.

The committee on arrangements as soon as appointed lost no time in engaging space for the general meetings, section meetings, exhibit space and the use of the entire B. of C. building. With a business like stance and some tactful argument, our committee, headed by Dr. Joseph Grosjean and aided by the political influence of Drs. Baker and T. A. Baird, all the places of meeting were promptly arranged, for I have been informed officially that the places of meeting were never more conveniently selected and the total rent for housing were never lower than at our meeting this year.

The Board of Censors attended promptly the reviewing of applications for membership. The board consists of Drs. Gallagher, Hess and Foster. They reported unfavorably on only one member that of our friend, Dr. George Heinburg, who lost his diploma on the way across.

The accommodations committee contributed their part in a creditable manner for the comfort of our visitors by reserving and providing sufficient rooms in our hotels and private homes to accommodate comfortably all our out-of-town guests. They also provided sufficient space in garages for those who came by auto to store the cars. This service was attended to by Dr. Dummond, chairman, Drs. Slattery, Stewart, Zaremba and Foster.

No doubt the greatest compliment that was paid our society during the state meeting was the selection of Dr. J. W. Hauxhorst as first vice president of the State Society. It is the general consensus of opinion that there was no one among our number who is better qualified professionally, ethically or by years of practice than the father of the Bay County Medical Society.

When wireless messages came to my attention during the early spring months that our secretary-treasurer was about to commit a matrimonial stunt, I was apprehensive about the future efficiency of our secretary work. I had misgivings that the added duties—head of a family, and the attention (more especially during the honey moon time) and courtesies due an attractive bride—might detract his attention from our county society's work. Nevertheless, my fears have been entirely relieved and if matrimony has the same effect on the efficiency of all our county secretaries' work I think Dr. Warnshuis should recommend that if there are any more single county secretaries in Michigan the county society for which they officiate should recommend matrimony for their mutual benefit. A jovial aggressive secretary like Dr. Foster is the greatest asset any organization can possess. His helpful suggestions and kindly advice has kept yours truly out of many entangling alliances.

The thought has frequently occurred to me that while Dr. Hauxhorst has for a number of years been the father of our society, I believe that Dr. Foster's qualifications, his willingness to solve our troubles, entitle him to the distinguished title of mother of the Bay County Medical Society.

On Tuesday evening of the state meeting Dr. McLurg very appropriately entertained the Council at a 6 o'clock dinner. And let it be said that

Dr. McLurg makes a live representative for our district and is one of the main spokes in the management of the State Society.

The boxing bouts at the smoker were refereed very skillfully by our Dr. M. Slattery and he demonstrated that he was thoroughly conversant with the Marquis of Queensbury rules, while Dr. Fred Baird officiated as timekeeper. It is rumored that Tex Rickard has offered a contract to Mat and Fred to perform in a similar capacity at the proposed Willard-Dempsey go for the heavyweight championship of the world.

At the armory Dr. W. J. Gustin was threatened with an acute cardiac attack when he discovered that the minister had not been called and it would be up to him to return thanks at the banquet. His prompt recovery was assured on the arrival of a D. D. instead of an M. D.

Probably the most dangerous duties to perform at the state meeting were disposed of by Dr. Lou in true world war style. While I was engaged in a billiard contest with one of our guests I hear commending in the exhibit department. After a very careful reconnaissance on my part I discovered our chairman of exhibits in a word battle with the A. M. A. in which our chairman came out victorious. It is a custom I am told in war for the commander-in-chief to stay under cover, and as I am a pacifist, I obeyed that formality to the letter.

A new office was created this year, that of Sergeant-at-Arms and Secretary Officer. The latest portfolios' duties are to take the pass word from each one present and qualified to remain. Those who do not comply with our standard of ethics and who do not obey all the clauses of the oath of Hippocrates are speedily ejected bodily by our new officer. Our new sergeant was inaugurated into the mysteries of his new office September 27, and he immediately demonstrated his qualifications to serve by promptly ejecting Professor Heinburg from our sanctum sanctorum. In addition to nose and throat conditions Dr. P. R. Urmston performs the duties of this new office.

There seems to be a tendency lately for the professions to get together. This year our society joined hands with the profession of dental surgery. I understand that two of our popular members, Drs. W. R. Ballard and Perkins, have been associated not with, but on an osteopath and that they separated him from an acute appendix. But they haven't got anything on your president, as I successfully reduced a subluxation on the chiropractor and allowed the vital energy to flow out freely. I was enabled by this method to separate this chiropractor from a nine-pound girl. The adjustment was very satisfactory, especially as it affected my bank account.

Our medico-legal committee made good progress in the prosecution of George Heinburg until they came within sight of the city hall. At this point the elder members of the committee, having their olfactory sense of evading trouble well trained, retreated in good order. The younger members of the committee continued the advance but at the sight of auto patrols and police officers well armed, a hasty retreat was appropriately carried out by the officer in charge. Personally, can sympathize with the committee, for when Chief Davis sends out a patrol load of officers heavily armed, prepared for summary action, and one is greatly outnumbered, it is probably good prophylaxis to play very carefully the soft pedal.

When President McLean was about to deliver his annual address he was greatly embarrassed to dis-

cover after making an inventory of all his wearing apparel from the palmar surface to his playtysma myoides that he was widely separated from his manuscript, but after a hurried consultation with our state secretary, it was decided that the secretary should make a dash to the Times-Tribune office for the manuscript. While Dr. McLean was anxiously waiting at the church, Dr. Warnshuis negotiated the distance and returned with the valuable package in something like a record of 100 yards in 10 seconds. His audience was well repaid for the brief delay by the classical address of our retiring state president.

SUGGESTIONS

That our Board of Commerce be informed of Dr. Gallagher's qualifications in securing state meetings for Bay City and that they employ him in that capacity.

That associate memberships be provided for, by our society limiting the privilege to a closely allied profession, that of dental surgery.

That a legislature committee be appointed each year by the president as suggested by the State Society, this committee to raise a fund by voluntary subscription to assist our State Society in protecting our interests in the state legislature.

That at least one meeting be held annually as a medico-legal gathering, having the attorneys of our city as our guests. This might tend to produce a fraternal feeling and a better mutual understanding between the two professions. There is probably no class whose friendship and good will would be more valuable to the doctor than the attorneys at law.

That every one of our members the coming year join our Bay City Country Club and take advantage of the opportunity to play golf. All those who play the game regret that they did not start earlier in life. It acts as a prophylactic for choleliasthesis and other abnormal conditions of the liver; it is a sedative to the nervous system and it stimulates the development of muscular tissue. That is very obvious when the names of some of our golf enthusiasts are mentioned. Take for example Drs. Grosjean, McLurg and Tupper. It is conservatively estimated that the average medical man in the U. S. A. is flim-flammed out of \$3,000 during his lifetime. Why not invest that in golf and have a hobby that is really worth while for a life time. In the sixteenth century Ponce de Leon was sent out on a voyage by the king of Spain to discover the fountain of youth. If instead of searching through the wilds of Mexico and the shores of Florida he had gone north and visited the shrine of St. Andrews, the Edinburg golf course, the goddess of golf—he might have returned and reported to the king that he had discovered the nearest approach to a prescription for perpetual youth—the game of golf.

In concluding this year's work I desire to extend my thanks to you for the opportunity of serving you as president and for your unanimous support in the work of the society throughout the year. The universal respect that has been accorded the office of president in 1921 will be one of the most pleasant recollections of my life. Your regular attendance at the meetings and your willingness to deliver papers when requested is especially praiseworthy. I trust that your loyal support and regular attendance will continue the coming year, and that the incoming president will have as pleasant and agreeable an administration as I have had the pleasure of experiencing through this year.

G. M. M'DOWELL.

Read before Bay County Medical Society at its annual meeting, Dec. 12, 1921.

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, January 4, 1922, President Miner presiding. Attorney W. V. Smith addressed the society on the subject of "Medical Jurisprudence." A committee was appointed to procure a place suitable for the care of insane patients awaiting examination. At present these cases are detained in the county jail with ordinary criminals.

The Genesee County Medical Society met on Wednesday, January 18, President Miner presiding. Dr. H. K. Shawan of Detroit read a paper on "The Operative Indications of Goitre." He outlined the pathology of the various types of goitre, gave the symptoms, and described the treatment of each type.

The clinical section of the society has merged with the stiff meetings of Hurley Hospital and monthly meetings are planned. At the meeting held on Monday, January 9th, cases were presented by Drs. F. L. Tupper, George Curry and R. A. Stephenson.

The Rotary Club of Flint has taken up the subject of an orthopedic survey of this community. Dr. F. C. Kidner of Detroit and Dr. Abbott of Ann Arbor have been secured to conduct a clinic at Hurley Hospital on January 25 and 26. They will be assisted by local surgeons. Drs. Manwaring, Morrish and Jones will assist the Rotarians in making arrangements for this clinic.

W. H. MARSHALL,
Secretary.

HILLSDALE COUNTY

The annual meeting of the Hillsdale County Medical Society was held January 10, 1922, at the Mitchell Library in Hillsdale, the president, Dr. T. H. E. Bell, in the chair. After the reading of the minutes, the president's annual address on "Hemolytic or Streptococcic Sore Throat" was listened to with great interest. He called especial attention to the great infectiousness of the malady and the necessity of isolation and quarantine; also to the uncertain and often unsatisfactory results of treatment. The address was discussed by Dr. O. G. McFarland, followed by a general discussion.

The president then introduced Dr. J. S. Pritchard of the sanitarium, Battle Creek, who gave an able and most illuminating lecture on "Interesting Non-Tuberculosis Conditions of the Chest." He exhibited a large number of lantern slides illustrating sarcoma, syphilitic lesions, pleuritic effusions and many other conditions that may simulate tuberculosis, especially in the earlier stages, and make diagnosis difficult and sometimes impossible. He called especial attention to the danger of definitely branding as tuberculosis a patient until certain, and the importance of beginning treatment at once in obscure cases, since the treatment for tuberculosis could not fail of good results even where other lesions are present. He also pleaded for careful and painstaking work by the general practitioner, aided where necessary by every instrument of precision. Dr. Pritchard's address was in large part a plea for more careful and accurate work on the part of the local doctor and the need of bringing home to the people the importance of consulting their physician early in suspicious cases, and teaching them that tuberculosis is usually curable if treated early and efficiently.

An obscure case of lung trouble of long standing in a boy of 14, presented by Dr. Frankhouser, was shown by the careful analysis of Dr. Pritchard to be almost certainly, chronic abscess of the lung.

Discussion was opened by Dr. W. H. Sawyer,

followed by Dr. C. T. Bower and general discussion and questions; after which Dr. Pritchard was given a vote of thanks by the society.

Physicians present were Drs. Bell, Sawyer, Hughes, Clobridge, McFarland, Martindale, Frankhouser, Hanke, Green, Bechtol, Bower and Fenton. 12 out of about 30 in the county. It is much to be regretted that more were not present.

Officers elected for 1922 were: President, Dr. Hanke; vice president, Dr. Bower; secretary-treasurer, Dr. Fenton.

Adjourned.

EATON COUNTY

At our annual meeting last month the following members were elected:

President—Wilson Canfield, Eaton Rapids.
Vice President—Chas. D. Huber, Charlotte.
Secretary-Treasurer—H. J. Prall, Eaton Rapids.
Delegate—C. L. McLaughlin, Vermontville.
Alternate—Stanley Stealy, Charlotte.
Member Medical-Legal Committee—A. W. Adams, Bellevue.

Find enclosed clipping giving some of the facts in the life of Dr. A. W. Adams, a very much respected member of our society, whose death occurred on January 1st, 1922,

PHIL H. QUICK,
Ex-secretary-Treasurer.

MONROE COUNTY

At the annual meeting on October 19, 1921, the following officers were elected:

President—A. E. Unger, Dundee.
Vice President—J. J. Siffer, Monroe.
Secretary-Treasurer—H. W. Landon, Monroe.
Delegate—H. W. Landon, Monroe.
Alternate—W. F. Acker, Monroe.
Member Medical Defense Committee—C. T. Southworth, Monroe.

Report of this was sent in in November but notice no change in Journal. At a special meeting on December 8 it was decided to amend the by-laws and have a meeting on the third Tuesday of each month with set program and luncheon. Fifty dollars was voted to be sent to State Society for Medico-Legal Committee. Dr. Bryce Miller, Monroe, was chosen Corresponding Secretary to State Society. Hope to get some reports to you of our society after next meeting.

Best wishes to you for the New Year.

HERBERT LANDON,
Secretary-Treasurer.

UPPER PENINSULA

The Upper Peninsula Medical Society celebrated its twenty-fifth anniversary meeting in the city of Marquette on Aug. 25 and 26, 1921, with a large attendance of its membership from all parts of the peninsula and prominent visitors from the lower part of the state, among whom were President Kaye of the State Society and Secretary Harrison of the State Board of Registration.

The meeting was called to order by President R. A. Walker of Menominee, introducing Mayor Clark, who gave an address of welcome. The following committee on nominations was appointed:

A. W. Hornbogen, Marquette; E. H. Webster, Sault Ste. Marie; A. Sawbridge, Stephenson.

At the afternoon session the following papers were read:

"Dentigerous Cysts," Lantern Demonstration), W. J. Anderson, Iron Mountain.

"Some Present Day Problems Confronting the Medical Profession," President R. A. Walker, Menominee.

"The State Hospital," E. H. Campbell, Superintendent Newberry State Asylum.

"Densitization Applied to a Case of Chronic Ether Poisoning," A. F. Fisher, Hancock.

"Therapeutic Fallacies," F. McD. Harkin, Marquette.

The papers presented were subjected to animated discussion by many of the members present.

The meeting was adjourned until the following morning and the members taken upon a tour of inspection of St. Mary's hospital and St. Luke's hospital, where refreshments were served.

At 6:30 p. m. a banquet was tendered to the visiting members at the Guild hall by the Marquette and Alger County Medical Society. Dr. F. McD. Harkin presided as toastmaster and numerous good toasts were presented—one, by President Kaye, upon "State Medicine," which was very favorably commented upon by the Upper Peninsula doctors.

The wives and sweethearts of the visiting members were entertained at a bridge party at the Kawigama Club in the afternoon, with dinner at Evergreen Inn and a theater party in the evening at the Delft.

At the Friday morning session a paper, "Tropical Medicine," was read by Dr. A. K. Bennett of Marquette and an interesting paper by the Dean of our County Society, Dr. T. A. Felch, "Medical History of the Upper Peninsula."

The following officers were elected for the ensuing year:

President, Dr. F. McD. Harkin, Marquette; First Vice President, Dr. T. W. Scholtes, Munising; Second Vice President, Dr. J. G. Turner, Houghton.

Houghton was selected as the meeting place in 1922.

The following resolutions were offered by the committee, which were unanimously adopted:

We have with us one who has ever been loyal to the Upper Peninsula Medical Society, which owes in a large measure its existence to his vision of the future; and to whom medical men of Michigan owe a debt which they can never repay; Dr. B. D. Harrison in the early days of the fight for better medical education gave up practically all of his private practice, and due to his untiring work medical matters were put on a high plane, earlier than they would have been but for his efforts.

Therefore, Be It Resolved, That the Upper Peninsula Medical Society give to Dr. Harrison a rising vote of thanks for his contribution to this and many previous meetings; and express the hope that he may be spared many years to continue his important work in Michigan medicine.

Resolved, That Dr. Kaye be thanked for his talk to us on state medicine, and for the pleasure his attendance has given to the Upper Peninsula medical men.

Resolved, That the Society heartily endorses the plans in course of formation for the establishment of a permanent legislative committee composed of one member each of the State, Pharmaceutical and Dental Societies, maintaining a permanent office and secretary;

Resolved, Further, That it is recommended that this proposed committee be supported by voluntary contributions from members of the county societies of this state;

Resolved, Further, That the above resolution re-

ceive the endorsement of the county medical societies of the Upper Peninsula, and that action be taken by such societies in the immediate future and before the proposed special session of the legislature next January.

GRAND TRAVERSE-LEELANAU COUNTY

The regular meeting of the Grand Traverse-Leelanau County Medical Society was held Nov. 8, 1921, at the office of Dr. E. F. Sladek.

Dr. H. V. Hendricks of the Traverse City State Hospital read a paper on "The General Practitioner and the Insanity Certificate," which was very favorably received, the members of the society getting many good pointers as to the filling out of these blanks. It is the opinion of the society that every physician in the state ought to read this paper.

On Nov. 28, 1921, the society held a special meeting in honor of Dr. Oscar Chase of Chicago, who gave an informal talk on "Infant Feeding as Conducted at the Chicago Infant Welfare Stations." This very instructive talk was much appreciated by the members of the society.

The annual meeting of the Grand Traverse-Leelanau County Medical Society was held Dec. 6, 1921, at the Hotel Traverse. Drs. Swartz and Tripp being the hosts for a very excellent dinner.

The report of the secretary-treasurer was read and accepted.

The election of officers was as follows:

President, Dr. H. V. Hendricks; Vice President, Dr. A. C. Wilhelm; Secretary-Treasurer, Dr. F. G. Swartz; Medico-Legal Committee, Dr. E. B. Minor.

E. F. SLADEK,
Secretary-Treasurer.

MUSKEGON COUNTY

The annual meeting of the Muskegon County Medical Society was held at the Century Club Dec. 16, 1921. Thirty-five members were present. Following the banquet, Mr. John Q. Ross gave an excellent talk on "The Doctor as a Business Man." The address was followed by an unusually lively discussion in which Drs. Garber, Marshall, LeFevre, Busard, Durham, A. A. Smith and Thornton took part.

The following officers were elected for the year 1922:

President, Dr. George LeFevre; Vice President, Dr. R. I. Busard; Secretary and Treasurer, Dr. C. M. Colignon; Medico Legal, Dr. F. W. Garber; Delegate, Dr. F. B. Marshall; Alternate, Dr. J. Oosting; Board of Directors, Dr. J. T. Cramer, Dr. A. F. Harrington; Dr. F. B. Marshall.

Meeting then adjourned.

C. M. COLIGNON,
Secretary.

CLINTON COUNTY

RESOLUTION

Whereas, The public and profession are being sold out to:

- (1) Foundation control of "full time" medical education.
- (2) Lay board domination and the "closed shop" hospital.
- (3) Socialized state medicine, subsidized com-

munity health centers and hospitals under political or university control.

(4) Legislative dictation of therapy and fees.

(5) Demoralization of medical standards by the expansion of cults.

(6) Exploitations of the specialties by lay technicians.

Therefore, Be It Resolved, That all the delegates of the Michigan State Medical Society to the A. M. A. meeting in St. Louis, Mo., May 22 to 26, 1922, are hereby instructed to vote for:

(A) A change of policy and leadership in the A. M. A. pledged to the immediate abolition of the evils mentioned, and constructive protection of medical interests.

(B) The repeal of multiple representation and plural voting privilege by section delegates.

(C) The election of trustees for a period of two years, five trustees to be elected one year and four the next, to prevent the trustees from perpetuating oligarchical rule.

Be It Further Resolved, That copies of these resolutions be sent at once to The Journal of the Michigan State Medical Society, The Journal of the A. M. A. and the Medical Advisory Committee.

Passed Jan. 4, 1922.

D. H. SILSBY,
Secretary.

OTTAWA COUNTY

From the Ottawa County Medical Society to the State Secretary, Michigan Medical Society:

Whereas, It is contrary to the principles of Medical Ethics to secure patients by direct advertisement and circulars, or by indirect advertisement by means of newspaper or magazine comments concerning cases in which the physician has been or is concerned;

Whereas, The public press, both newspapers and magazines do frequently publish the names of physicians, either with or without their knowledge and consent;

Therefore, Be It Resolved, That the Ottawa County Medical Society is opposed to any and all forms of advertising and that the local newspapers be requested not to mention the names of physicians in print, in connection with accounts of medical or surgical cases; and be it further

Resolved, That copies of this resolution be sent to all the papers of the county, and to the secretary of the State Medical Society.

Passed January 10, 1922.

Regret to tell you that I have failed to report on our meetings for September, October, November and December, but am happy to state that they have been the most satisfactory of the year. both in point of interest and in actual work done by our society. The attendance has been about 75 per cent of the membership, indicating a revival of the old time enthusiasm and interest in society activities and professional co-operation. I can report a 95 per cent membership of the practitioners in Ottawa County.

As per advice from our Councillor, the County Society has elected to establish a free prenatal clinic, co-operating with the county and city nurses; also to support the movement in the State Society to develop an efficient medical protective insurance by the State Society. Further, our society voted unanimously to back up the work of the Legislative Committee of the State

Society and to contribute its share to maintain the necessary funds for this committee; the society voted an assessment of \$2.00 per member for this purpose.

Our annual election was held at the December meeting. Officers elected as follows:

President—Dr. G. H. Thomas, Holland.

Vice President—Dr. William Westrate, Holland.

Secretary-Treasurer—Dr. A. Leenhouts, Holland.

Delegate to State Convention—Dr. R. H. Nichols, Holland.

At this meeting we had a most healthful and helpful discussion on fees, contract practice and general medical ethics, and we are confident that many of the little differences and frictions that tend to keep physicians apart will be smoothed out and result in better harmony and more co-operation between our membership. We have every reason to look forward to a successful year.

A. LEENHOUTS,
Secretary.

SHIAWASSEE COUNTY

The annual election of officers of the Shiawassee County Medical Society was held in Owosso at Memorial Hospital on Tuesday, December 27, 1921, at 7:30 P. M. Officers elected are:

President—Dr. G. L. G. Cramer, Owosso.

Vice President—Dr. G. B. Wade, Laingsburg.

Secretary-Treasurer—Dr. W. E. Ward, Owosso.

Delegate to State Society—Dr. H. A. Hume, Owosso.

Alternate—Dr. W. E. Ward, Owosso.

Board of Directors—Drs. L. F. Rice, Owosso; J. O. Parker, Owosso; R. C. Fair, Durand.

Medico-Legal Representative—Dr. A. M. Hume, Owosso.

Shiawassee County doctors will adopt as an insignia for their automobiles, a white cross on a red background. A part of the meetings for 1922 will be held at the parlors of the Elks' Temple at a noon luncheon. The first meeting will be on January 10th, 1922.

The first meeting of Shiawassee County Medical Society was held at the Elks Temple in Owosso, on January 10th. There was a good attendance of physicians of the county. After enjoying a good lunch, the meeting was called to order by President G. L. G. Cramer. Dr. H. A. Hume, retiring president, asked permission to administer the obligation which he had prepared, to President Cramer, and on being granted the same, read to him the following:

"I swear by Apollo, the Physician Aesculapius, all Health and all Healing, all gods and all goddesses, that I will abide by all the rules and regulations, by-laws and constitution of the Shiawassee County Medical Society for the year 1922.

"That I will preside at its meetings with dignity, and give suitable notice of such meetings at least four days previous to said meetings. That I will call at least one meeting a month, with the exception of July and August, during the year. That I will personally notify any members who may claim to have received no notice of a meeting, and hold myself responsible for their attendance. That I will do all in my power to pass the buck, and that whenever a suitable occasion arises, I will see that there are levied sufficient special assessments during the year to provide good food, drinks and smokes for our members.

"That I will aid and abet my fellow Chiroprac-

tors to the best of my ability, and if there shall come to my notice a case of dislocation of the fifth lumbar vertebra, I will immediately call for a "Chiro" to adjust the son-of-a-gun.

"To all of this I most solemnly and sincerely swear to keep this oath and stipulation. So help me Mary Baker Eddy."

President Cramer accepted the "obligation" with certain reservations, and called upon the Board of Directors to give their ideas as to conducting the society during the coming year. Some excellent thoughts were brought out, and it is evident that Shiawassee will enjoy a prosperous year.

Dr. P. S. Willson of Owosso read a paper on Pelvic Pelvimetry in early Pregnancy, and Dr. W. Taylor gave a talk on Malpresentation of Confinement. Dr. F. L. Parsons of Durand and Dr. W. F. Weinkauff of Corunna were voted members of the society. The next meeting will be held February 7th and one of the subjects will be "Exophthalmic Goitre."

W. E. WARD,
Secretary.

MECOSTA COUNTY

The Mecosta County Medical Society was entertained by Dr. G. H. Lynch November 23, 1921, at the Sellas Cafe in Big Rapids. A bountiful turkey dinner was served, after which the members adjourned to Dr. Lynch's office, where the following program was carried out:

Combined Local and General Anesthesia, with special reference to the use of the former in major operations—Dr. G. H. Lynch, Big Rapids.

Abdominal Injuries, with report of four cases—Dr. E. C. Taylor, Jackson.

Both papers were thoroughly discussed by the thirteen members present.

Drs. K. S. Merriman, Mecosta; O. J. East and A. O. Miller, Reed City, and A. W. McCandles, Morley, were elected to membership.

The following officers were elected:

President—Dr. Glen Grieve, Big Rapids.

First Vice President—Dr. A. O. Miller, Reed City.

Second Vice President—Dr. K. S. Merriman, Mecosta.

Secretary-Treasurer—Dr. D. MacIntyre, Big Rapids.

Delegate to State Society—Dr. O. J. East.

Alternate—Dr. McCandles.

Medical Legal Representative—Dr. G. H. Lynch.

D. MAC INTYRE,
Secretary.

CALHOUN COUNTY

MINUTES OF ANNUAL MEETING

DECEMBER 6, 1921.

The forty-fifth annual meeting of the Calhoun County Medical Society was called to order at 6:00 P. M., December 6th, 1921, at the Post Tavern, by Dr. W. S. Shipp, president.

The minutes of the last meeting were read and approved as read.

The Secretary read a letter from Mrs. Arthur S. Kimball, which upon request of numerous members was ordered printed in the next number of the Bulletin.

Communication was read from the secretary of the Michigan State Medical Society relative to this society making a donation for the support of

the legislative committee of the State Society. Upon motion by Dr. Eggleston this communication was referred to the Board of Directors with request that they report at the next meeting.

The secretary read the following bills, which being O. K'd by the Board of Directors present, upon motion of Dr. Stone, chairman of the board, were ordered paid: Phoenix Printing Co., Bulletin, \$13.00; Dr. Haughey, stamped envelopes, \$1.65; Post Tavern, dinners and expense guests, Annual Meeting, \$83.50.

Reports of the secretary-treasurer, committee on tuberculosis and venereal prophylaxis were presented and adopted. The Board of Directors, committee on illegal practice, committee on Y. M. A. C., and legislative committee had no reports to make.

Dr. C. S. Gorsline, for the necrology committee, reported the following resolutions:

Whereas, In the passing of Dr. Arthur S. Kimball we, his friends, the community at large, and the members of our Society, have suffered an irreparable loss, and

Whereas, His high ideals of life, and professional conduct, and his devotion to the alleviation of the ills of humanity, should be worthy our profoundest contemplation and reverence, therefore, be it

Resolved, That the Calhoun County Medical Society, in annual meeting assembled, does express its appreciation of his life and noble work, and the great loss sustained by our Society in his untimely death; and be it further

Resolved, That a copy of these resolutions be made a part of our records, and a copy be sent to his bereaved family, with an expression of our deep sympathy in their bereavement.

Upon motion of Dr. Gorsline, supported from all parts of the floor, the resolution was adopted unanimously.

Dr. George C. Hafford presented the following resolutions:

Whereas, Diphtheria is at this time very prevalent in the state and in this vicinity, and

Whereas, The Schick test for immunity has become an established scientific procedure, and immunizing by toxin-anti-toxin is recommended by authorities, therefore, be it

Resolved, That the Calhoun County Medical Society, in this annual meeting assembled, go on record as recommending the same, and that we advise all schools of the county and all public institutions to establish plans and carry out such procedure in their respective localities.

Upon motion of Dr. Hafford, supported by Dr. Marsh, this resolution was adopted unanimously.

Dr. Shipp, president, announced that the time had arrived for the annual election of officers. He appointed Drs. J. W. Gething and Theodore Squier tellers. He then called for nominations for the office of president.

Dr. R. C. Stone placed in nomination the name of Dr. M. A. Mortenson. Dr. James A. Elliott placed in nomination the name of Dr. Thomas Zelinsky.

Dr. Eggleston moved that the nominations be closed and that we proceed to ballot. Supported and carried.

The tellers announced total number of votes, 41, of which Dr. Mortenson received a majority and was declared elected.

The president then called for nominations for office of vice president. Dr. Shipp nominated Dr. Zelinsky. Dr. G. C. Hafford nominated Dr. E. M. Chauncey. Dr. Chauncey nominated Dr. Geo. Haines.

The report of the tellers showed no majority, and no choice. Dr. Chauncey withdrew, and the Society voted again. The tellers then reported 9 ballots cast, of which Dr. Zelinsky received a majority and was declared elected.

The president called for nominations for the office of Secretary-Treasurer.

Dr. Colver moved that Dr. Wilfred Haughey be nominated to succeed himself, that the nominations be closed, that the rules be suspended and that the secretary cast the ballot of all present for Dr. Haughey. Supported and carried unanimously. The secretary announced 39 ballots cast and Dr. Shipp declared Dr. Haughey elected.

The president called for nominations for the office of delegate to the State Society, two to be elected.

Dr. Eggleston nominated Dr. W. S. Shipp. Dr. Gesner nominated Dr. Geo. C. Hafford.

Dr. Colver moved that the nominations be closed. Motion supported and carried.

Dr. Kingsley moved that the rules be suspended and that the secretary cast a ballot of all present for the nominees. Supported and carried.

The secretary announced 39 ballots cast, and Dr. Eggleston declared Dr. Shipp and Dr. Hafford elected.

The president called for nominations for the office of alternate.

Dr. Colver nominated Dr. E. L. Eggleston, and Dr. Stone nominated Dr. C. S. Gorsline.

Dr. Colver moved that the nominations be closed, that the rules be suspended and that the secretary cast the ballot of all present for these men. Supported and carried.

The secretary announced 39 ballots cast and the president declared Drs. Eggleston and Gorsline elected.

The president introduced Mr. W. R. Wooden, acting president of the Calhoun County Tuberculosis Association. Mr. Wooden described briefly the work of the association, its aims and purposes. He stated that the death of Dr. Kimball necessitated the appointment of a new medical director. That this must be gratuitous work done by an enthusiast. Mr. Wooden closed by offering a request that the president of the Calhoun County Medical Society appoint a committee of three to canvass the situation and suggest the name of some member of this society who would be available for director of the Calhoun County Tuberculosis Society. He stated that owing to the technical knowledge and training required, the directors of the Calhoun County Tuberculosis Society would withhold an action until they had heard from the Calhoun County Medical Society.

Dr. Gorsline moved that the president appoint such a committee and that their action be considered the action of the Society. Supported by Dr. Parmeter and carried.

Dr. Church moved that we adjourn. Supported and carried. The president announced that the Society adjourn to the annual banquet in the dining room where the ladies will be guests.

Attendance at the meeting, 41. Attendance at the banquet, 109.

WILFRID HAUGHEY,
Secretary.

BENZONIA COUNTY

Enclosed please find annual dues payment for the year 1922.

Everything looks all right with little Benzie, every eligible physician in the county belongs to

our society and each man is willing to do his share.

Benzonia is seriously thinking of converting what was formerly the girls dormitory of Benzonia Academy into a hospital. It is a fine, modern brick building and could easily be converted into a splendid hospital building that would fill an urgent need of quite a large region.

No more meetings until roads are passable for automobile as the snow lies deep in this region this time of year.

E. J. C. ELLIS,
Secretary.

JACKSON COUNTY

At a recent meeting of the Jackson County Medical Association the following officers were elected for the new year:

President—Horatio A. Brown.
Vice President—E. C. Taylor.
Secretary—E. F. Lewis.
Treasurer—L. J. Harris.

E. F. LEWIS,
Secretary.

MEETING OF THE NORTHWESTERN MICHIGAN CLINICAL SOCIETY

November 15, 1921.

The meeting of the Northwestern Michigan Clinical Society was held at the Traverse City State Hospital at two-thirty. Drs. Newburgh, Peterson, Parnall, and VanZwauenberg of Ann Arbor gave addresses. At the afternoon session Dr. Newburgh presented a case of Pernicious Anemia, giving the important diagnostic signs of the disease, differentiating from multiple sclerosis and carcinoma of stomach. He gave as the principal treatment diet and hygienic measures, stating that iron, arsenic and similar remedies had not justified their use.

He next presented a case of Gall Bladder disease, giving the cardinal diagnostic symptoms, mentioning that the conditions most apt to be confused with this being Peptic Ulcer and Chronic Appendicitis.

A case of Dropsy was next presented and discussed, but owing to the lateness of the hour and incomplete laboratory reports a diagnosis was only provisionally made.

Dr. Peterson exhibited two cases—one a complicated fibroid simulating pregnancy in a woman aged 44, and one a case of pseudocyesis in a patient of 38.

In the evening Dr. VanZwauenberg gave a talk on the early diagnosis of tuberculosis by the X-ray, stating that this was possible long before any physical signs appeared and often before symptoms were manifest. He mentioned in particular the value of the pleural line in making an early diagnosis.

Dr. Newburgh kindly consented to give the results of his investigations regarding diabetes. He mentioned the lack of success of the so-called starvation treatment and gave the outline of the diet now used at the University Hospital, mentioning the use of a limited amount of fat and carbohydrate. He reported a number of cases which had been successfully treated and returned to former useful occupations. After a short discussion the meeting was followed by a short business session.

F. HOLDSWORTH, Secretary.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Splendid opening in Lansing for physician. Particulars on request. Laird J. Troyer, 2004 East Michigan, Lansing.

Dr. Arthur M. Hume announces his resignation and retirement from duty as district field officer of the Veterans' Bureau and his resumption of private practice at Owosso.

The certificate of the National Board of Medical Examiners is now recognized by Vermont, New Hampshire, Rhode Island, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, Georgia, Florida, Alabama, Kentucky, Minnesota, Iowa, Nebraska, North Dakota, Colorado, Idaho and Arizona (20). It is also recognized by the army, navy and public health services of the United States, the conjoint board of England and the triple qualification board of Scotland.

Mrs. Gertrude S. Walker, 70 years of age, widow of Dr. H. O. Walker of Detroit, died Jan. 14, 1922, at the home of her son, Mr. Elton W. Walker at Houghton, Mich.

Dr. B. C. Lockwood read a paper on "The Effect of Some Drugs on Gastric Function by Fractional Analysis" before the Detroit Academy of Medicine Jan. 17, 1922.

Dr. George Dock, formerly professor of medicine in the University of Michigan was elected first vice president at the last meeting of the American Society of Tropical Medicine.

President Harding has nominated Dr. William H. Welch of Baltimore, Dr. Frank Billings of Chicago and Dr. William Mayo of Rochester to be brigadier generals in the Reserve Corps of the Medical Department of the United States Army.

Dr. and Mrs. C. B. Lundy of Detroit announce the birth of a son, Charles Bradford, Jr., Dec. 25, 1921.

Dr. W. McKim Marriett, Professor of Pediatrics at Washington University Medical School in St. Louis, read a paper on "Some Problems in Nutrition of Infants" before the Wayne County Medical Society, Jan. 16, 1922.

Dr. Carl S. Oakman has left Detroit to assume the general managership of the Wilson Laboratories (manufacturing chemists) in Chicago. The doctor has for many years been a member of the Wayne County Medical Society and the Detroit Academy of Medicine.

To make 1922 a diphtheria eradication year in Michigan is the aim of Dr. R. M. Olin, Commissioner of Health. Free distribution of antitoxin in each of the 83 counties of the state, the commissioner

believes, will reduce the death rate from 23.6 per 100,000 to not more than 10 per 100,000. In Wayne county the stations where antitoxin will be kept ready for free distribution are as follows: Detroit Department of Health, Dr. T. T. Dysarz (Hamtramck) Buzzell and Foster (Highland Park), Meyer Drug Company (Redford), C. R. Horton (Northville), Pinckney's Pharmacy (Plymouth), O'Brien's Drug Store (Wayne), S. W. Campbell (Belleville), Clare F. Allan (Wyandotte), Dr. C. A. Smith (River Rouge), Louis A. Seavitt (Ecorse) and City Drug Company (Dearborn).

The Ninth Year Book of the American College of Surgeons shows Michigan has 179 Fellows. Of this number 87 come from Detroit, 14 from Grand Rapids, 11 from Ann Arbor, 9 from Battle Creek, 5 each from Muskegon and Saginaw, 4 from Kalamazoo and the rest from the remaining cities and towns in Michigan.

The list of the approved hospitals of the American College of Surgeons in Michigan is as follows: University Hospital (Ann Arbor), University of Michigan Homeopathic Hospital (Ann Arbor), St. Joseph's Hospital (Ann Arbor), Battle Creek Sanitarium (Battle Creek), Children's Free Hospital (Detroit), Detroit Receiving Hospital (Detroit), Grace Hospital (Detroit), Harper Hospital (Detroit), Henry Ford Hospital (Detroit), Providence Hospital (Detroit), St. Mary's Hospital (Detroit), Woman's Hospital (Detroit), Blodgett Memorial Hospital (Grand Rapids), Butterworth Hospital (Grand Rapids), St. Mary's Hospital (Grand Rapids), Highland Park Hospital (Highland Park) and Hackley Hospital (Muskegon) (17).

The Deaconess Hospital of Detroit has recently completed a large addition and can now accommodate 110 patients. In the afternoon of Jan. 6, 1922, the hospital was thrown open to the medical profession for inspection and in the evening Dr. Plinn Morse read a paper on "The Prognosis of Nephritis."

The initial lecture of the Beaumont Lecture Foundation of the Wayne County Medical Society was given Jan. 30, 1922. The subject, "Inflammation," was discussed by Dr. W. G. McCallum, Professor of Pathology in Johns Hopkins University. On Tuesday morning, Jan. 31, 1922, a second lecture was given, succeeded in the evening by a popular lecture to which the general public was invited. It is expected that from the proceeds of the residue of the Patriotic Fund, a series of lectures will be given every winter on various medical scientific subjects. In connection with these lectures, a Beaumont Exhibit was arranged. Dr. Beaumont made his epoch-making researches in physiology while stationed at Fort Mackinac on Mackinac Island.

On Jan. 11, 1922, Dr. H. W. Plaggemeyer began a series of lectures on "The Essentials of Modern Urology" at the Woman's Hospital, Detroit.

On Dec. 14, 1921, Dr. Marion LeRoy Burton, President of the University of Michigan, gave a luncheon in Ann Arbor to discuss plans for a program, intended to disseminate medical knowledge and information regarding public hygiene. The aid of the State Department of Health and certain state-wide voluntary health agencies will be requested in carrying out this program. The university, through its extension division, will co-operate with the State Medical Society and the public health agencies. The

the University Medical Faculty and prominent physicians and surgeons and public health experts throughout the state. Besides the president the following men were present: Dr. Hugh Cabot, Dr. G. Carl Huber, Dr. John Sundwall, Professor W. D. Henderson, Dr. W. J. McKay, Dr. J. B. Kennedy and Dr. Angus McLean. These plans were submitted to Council of Michigan Medical Society and University Regents at their January meetings.

At the Dec. 19, 1921, meeting of the Wayne County Medical Society the following resolution was passed: That the Wayne County Medical Society should change its by-laws so that one meeting a month or its equivalent could be devoted to business and that the president appoint a committee of three members to confer with the council relative to drafting an amendment to the constitution and by-laws for this change.

The Jan. 3, 1922, meeting of the Wayne County Medical Society was in charge of the Detroit Department of Health. Dr. F. M. Meader gave a paper on "The Problems of the Child Welfare in Detroit;" Dr. W. M. Ross on "The Activities of the Division of Child Welfare;" Dr. W. E. Welz on "The Activities of the Division of Prenatal Work;" Dr. Francis Duffield on "The General Policies of the Board of Health."

Dr. H. B. Schmidt of Detroit has resigned from the staff of Harper Hospital to accept an appointment at Providence Hospital.

Dr. E. R. Witwer of Detroit was chosen Worshipful Master of University Lodge, F. & A. M., No. 482, Dec. 23, 1921.

Dr. and Mrs. Frank B. Walker, Detroit announced recently the engagement of their daughter, Margaret Alice, to Mr. George M. Hawthorne of Windsor, Ontario, Canada.

A daughter arrived at the home of Dr. and Mrs. T. P. VanderZalm of Lansing, Mich., Nov. 19, 1921.

On Jan. 12, 1922, the Detroit Chapter, Military Order of the World War, installed their new officers. Dr. Frank B. Walker (Major) was installed as Junior Vice Lieutenant Commander, Dr. Angus McLean (Colonel) as Adjutant and Dr. B. R. Shurly (Colonel) as member of Advisory Staff.

At the annual meeting of the Detroit Yacht Club, Jan. 9, 1922, Dr. G. H. Voelkner was elected Rear Commodore and Dr. C. J. Ratigan Fleet Surgeon.

Sister Mary Borgia, for 37 years head of St. Joseph's Retreat, Dearborn, Mich., died Jan. 11, 1922. She was born 81 years ago. Dr. D. R. Clark and Dr. D. H. O'Donnell (both of Detroit) were active pallbearers and Dr. Theophil Klingman of Ann Arbor was one of the honorary pallbearers.

At the annual meeting of the National Board of Medical Examiners, Surgeon General H. M. Ireland was elected President and Dr. J. S. Rodman, Secretary-Treasurer.

The National Board of Medical Examiners has recently adopted the following method of giving ex-speakers will be selected from among members of

aminations. All students of Class A Medical Schools who have finished their first two years, can take Part I of the written examination in their own school. At the end of the fourth year they can take Part II (written), also in their own school. They will be eligible to take Part III (oral and practical) after they have completed their hospital interne year. They can take Part III in the nearest of 15 large centers of population. As this is a practical examination, including laboratory and clinical tests, it is of necessity held in cities where a considerable variety of patients are available.

The Congress of Medical Education and Licensure will meet in Chicago March 6 to 10, 1922.

The Congress of Medical Education and Medical Licensure is comprised of the Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges, Federation of State Medical Boards, the Council on Health and Public Instruction of the American Medical Association and the American Conference on Hospital Services.

The year just closed shows a higher disease rate in Detroit for diphtheria, a slightly higher rate for whooping cough and lower rates for scarlet fever, smallpox and measles. Vernal diseases exceed all others in numbers, 8,000 cases being reported in 1921.

Arrangements may be made through Dr. W. H. MacCraken, Dean of the Detroit College of Medicine and Surgery, to have any of the following physicians address Parent-Teacher Associations in neighborhoods where audiences can profit by them: Doctors Guy L. Kiefer (Preventive Medicine), W. E. Blodgett (Human Foot), Ray Andries (Water in the Human Organism), C. C. McClelland (Anatomy of Eye), R. A. Wollenberg (Anatomy and Physiology of Skin), George Chene (X-Ray), J. H. Dempster (X-Ray), W. E. Evans (X-Ray), F. B. Walker (Growth of Tissue), T. A. McGraw (Ductless Glands), William Donald (Lungs in Health and Disease), J. E. Davis (Disease and Deformity), C. F. McClintic (Anatomy), William Patterson (Physiology), Harry Clark (Bacteria) and A. S. Dewitt (Assimilation).

Final arrangements for the organization of a club for officers for the Army, Navy, Marine Corps, National Guard, Reserve Force and all former officers who have served their country, were made Dec. 28, 1921, in Detroit. In all probability, the new club will be christened "The Army and Navy Club of Detroit." Dr. B. R. Shurly was elected first vice president and Dr. Angus McLean a director.

Dr. and Mrs. E. K. Cullen of Detroit announced the birth of a daughter, Charlotte Mary, Dec. 26, 1921.

Fred L. Woodworth, collector of internal revenue at Detroit, has made the statement that physicians are probably the most delinquent in the prompt payment of their special taxes. He thinks that this is due to the fact that the average physician is so engrossed in his professional duties that his memory has slipped a little bit faster than the year.

The year, just closed, promises the lowest infant mortality rate in the history of Detroit. Records

to Dec. 24 indicate a figure well below 90. The year 1919 gave Detroit the lowest previous rate (96.8). In 1920 the rate was 104.2, due to the influenza epidemic. The City of the Straits has traveled a long road from its rate of 213 in 1906, but she still has some distance to go to reach the rate of Minneapolis (65).

Charles J. Burgess, brother of Doctors J. M. Burgess and J. E. Burgess of Detroit, died Dec. 28, 1921.

Dr. Charles G. Jennings was at home to the Detroit Academy of Medicine, Jan. 1, 1922, from 5 to 6 p. m.

The West Side Physicians' Association of Detroit met Dec. 15, 1921. Dr. R. B. Hoobler talked on "Infant Feeding" and showed diagrams of a simple method of arriving at the correct formula for the healthy as well as for the unhealthy child's diet. Dr. May spoke on "Diseases Which Resulted From Improper Feedings."

The Detroit Pediatric Society held a clinical meeting at the Herman Kiefer Hospital, Dec. 7, 1921. The program was presented by the staff of the hospital. Luncheon was served after the meeting.

The Blackwell Medical Society of Detroit met Dec. 19, 1921, at the Lenox Hotel.

The Detroit census, conducted by the Board of Education in May, 1921, shows that 21.6 per cent of Detroit's population is under 10 years of age; 15.1 per cent from 10 to 19; 41.8 per cent from 20 to 39; 17.2 per cent from 40 to 59, and 43 per cent 60 or over. This information is of the greatest value to the Detroit Department of Health, as it enables the department to better understand the significance of Detroit's total death rate.

Mrs. Campbell, wife of Dr. Don M. Campbell of Detroit, and daughter are spending the year abroad in travel. Mr. Don M. Campbell, Jr., is a student in architecture in the Beaux Arts in Paris. They expect to return to America this coming summer.

The East Side Physicians Association of Detroit met December 15, 1921, at the Detroit College of Medicine and Surgery. Dr. E. L. Robinson gave an illustrated lecture on "Personal Identification by Means of Friction Skin Patterns"; Dr. W. H. MacCraken talked on "Certain Shortcomings of the Medical Practitioners," and Dr. J. E. Davis presented the pathology of three cases of sudden deaths.

The Academy of Surgery of Detroit met November 11, 1921, at St. Mary's Hospital. Dr. Joseph Andries gave a paper on "Pneumoperitoneum" with lantern slides; and Dr. A. W. Blain read a paper on "Lacerations of the Cervix," illustrated with lantern slides.

The Detroit Ophthalmological and Otological Club were dinner guests of Dr. Herman Sanderson, Jan. 4, 1922. After the dinner, the doctor read a paper on "Tuberculin Therapy in Eye Diseases."

The Highland Park Physicians Club held their regular meeting at the Highland Park General Hospital December 1, 1921. Dr. F. R. Witter

presented thyroidectomy cases. Dr. R. F. Foster read the paper of the evening on "Surgical Anatomy of the Thyroid Gland." The following officers were elected for the ensuing year: President, Dr. B. R. Eastman; vice president, Dr. E. V. Beardslee; secretary, Dr. William Bradley, and treasurer, Dr. H. J. Butler.

The Academy of Surgery of Detroit met December 9, 1921, at Grace Hospital. Dr. J. H. Boulter read a paper on "Pre and Post Operative Treatment"; Dr. F. A. Kelly, on "Hernia"; and Dr. G. P. Meyers, on "Some Bone Plates Left in Situ."

Drs. George L. LeFevre of Muskegon, Albertus Nyland of Grand Rapids, Nelson McLaughlin of Detroit, William S. Shipp of Battle Creek, and Guy L. Connor of Detroit have been re-appointed members of the Michigan State Board of Registration in Medicine by Governor Groesbeck.

Final reports of the campaign at Flint to raise \$73,000 for the purchase of a new building for the Women's and Children's Hospital were made December 17, 1921. The amount was exceeded by about \$100.

The new Detroit Tuberculosis Sanatorium at Northville received its first patients December 19, 1921, when 32 children, ranging in age from 6 to 16, arrived to take up permanent quarters. The children were removed from the Herman Kiefer Hospital to make room for more advanced cases. One of the interesting features of the treatment is occupational therapy instruction in handicraft that takes the mind off the patient's troubles as well as educating it.

On December 20, 1921, in the Detroit Armory, the distinguished service medal was presented to Lieut. Col. William H. Honor (retired) of Wyandotte, by Col. H. E. Eames of the Fifty-fourth United States Infantry, stationed at Fort Wayne. Dr. Honor received this medal for extraordinary meritorious and distinguished service in organizing and operating the medical section of the labor bureau of the A. E. F. in France.

Joseph Barris of Detroit pleaded guilty before Judge Heston in the Municipal Court, December 21, 1921, to practicing medicine without a license.

Harold Furlong of Pontiac, a sophomore medical student in the University of Michigan, has been awarded the Italian war medal. The award was based on the heroism which won Furlong an American war medal.

Dr. D. Emmett Welsh of Grand Rapids departed January 22nd for a two-months' vacation in California.

Dr. A. W. Hornbogen of Marquette attended the mid-winter meeting of the Council in Detroit January 10 and 11.

Flint, June 7, 8 and 9. These are the dates for our next annual meeting. Mark them in your engagement book.

The Scientific Committee of our Society will meet in Flint on February 1st to arrange the

program for our annual meeting. Requests for place upon the program should be sent to Section Secretaries.

Dr. W. E. Wilson of Grand Rapids has sailed for France. The doctor has accepted a scholarship from the Faculty of Medicine of Paris.

The laboratory of the Detroit Department of Health diagnosed 30 positive cases of hydrophobia (29 among dogs and 1 in a cat) during 1921. Sixty-two people bitten by animals were given the Pasteur treatment and not a single case of rabies in men was reported during the year.

In order that the clinical advantages of the Mayo Foundation, Rochester, and the hospitals of Minneapolis may be more completely available, the Fifth Annual Clinical Week of the American Congress on Internal Medicine has been changed to April 3 to 8, 1922.

Dr. Angus McLean has been appointed Consulting Surgeon on the staff of the Michigan Home and Training School at Lapeer.

Dr. Walter Manton has been recently installed as Surgeon for First Division Post, Veterans of Foreign Wars of the United States.

Mayor Couzens of Detroit has suggested to the Children's Free Hospital and the Michigan Hospital School for Crippled Children that they merge. He has offered them \$1,000,000 and whatever more is necessary so that Wayne county may have a children's hospital unexcelled in the world.

The Michigan Hospital School for Children, near Farmington, is to be increased immediately by the erection of a new building. Mayor Couzens has already given this institution between \$1,000,000 and \$2,000,000.

There were 1,020 complaints against quarantine violators referred to the office of the Detroit Department of Health during 1921. It was necessary to burden the courts with only 65 arrests (63 convictions). Penalties imposed by the court amounted to \$2,790 in fines and five jail sentences.

Mrs. J. W. Gauntlett and daughter, of Traverse City, are spending the winter in Florida. The doctor expects to join them in February.

Correspondence

Editor, Journal Michigan State Medical Society:

For the convenience of many of your readers who will plan to attend the meeting of the American Medical Association, which is to be held in our city next May, will you kindly publish the following in your esteemed journal:

THE ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSOCIATION

The May meeting of the American Medical Association at St. Louis promises well toward being the largest in attendance of any of the Association's sessions. Since the publication of the hotels in the Journal of the Association in December, in-

quiries and reservations are being made daily. The hotels and Conventions Bureau are aiding the Committee in a most satisfactory and helpful way to see that the Fellows are comfortably housed and accommodated. The A. M. A. meetings tax all cities entertaining them to the limit of hotel capacity. Whenever possible a good Fellow should double up so that no one is left without comfortable lodging.

Reservations should be made by communicating direct with the hotels. If satisfactory arrangements cannot be made in this way, write to Dr. Louis H. Behrens, Chairman Committee on Hotels, 3525 Pine Street, St. Louis, Mo.

Very truly yours,

THOMAS A. HOPKINS, M. D.

Chairman Committee on Printing.

Hotel, with number of rooms

American, 275—Diseases of Children.	Marion Roe, 200.
American Annex, 225—Pathology and Physiology; Pharmacology and Therapeutics.	Marquette, 400.
Beers, 114.	Laryngology, Otology and Rhinology.
Brevort, 59.	Maryland, 240—Gastro-Enterology and Proctology; Urology.
Cabanne, 43.	Planters, 400—Ophthalmology.
Claridge, 350.	Plaza, 200.
Obstetrics, Gynecology and Abdominal Surgery.	Roselle, 100.
Hamilton, 160.	St. Francis, 120.
Jefferson, 400.	Statler, 650.
Surgery, General and Abdominal; Orthopedic Surgery.	Practice of Medicine.
Laclede Hotel, 265.	Stratford, 100.
Majestic, 200.	Terminal, 100.
Dermatology and Syphilology; Nervous and Mental Diseases.	Warwick, 200.
	Stomatology; Preventive Medicine and Public Health.

Editor, Journal Michigan State Medical Society:

I find in one American and two or three English books on Hydrophobia, the following statement:

"In the Guardian of April 3, 1867, it was also said to be announced that a little daughter of Mr. A. Woodruff, of the town of Greenfield, Michigan, having been seized with hydrophobia, a consultation was held by the physicians, who decided that, as the patient could not possibly survive, every consideration of humanity demanded that her suffering be ended by some means, in accordance with which the child was smothered to death."

It is true that smothering was, in the dark ages, resorted to in relieving sufferers from this disease of their incurable condition. I do not believe however, that at so late a date as that mentioned above, this practice was ever resorted to in Michigan.

I would like the physicians of the state to read this and if anyone can get any information bearing upon this, I am asking such a person to communicate with me.

There is no postoffice in Michigan by the name of Greenfield. There are many townships in the state bearing this name. I am making inquiry of Michigan physicians, whose practice includes such townships, to make inquiries and if anything bearing upon this "can be discovered," I would like to be put in possession of such information.

VICTOR C. VAUGHAN.

Chairman, Division of Medical Sciences,
National Research Council, 1701 Massachusetts Avenue, Washington, D. C.

Book Reviews

SUBMUCOUS RESECTION OF THE NASAL SEPTUM, by W. Meddaugh Dunning, M. D., Consulting Otolologist, Fordham Hospital, New York City; Consulting Otologist, Manhattan State Hospital, N. Y.; Consulting Laryngologist, Ossining City Hospital, Ossining, N. Y.; Consulting Laryngologist, The Alexander Linn Hospital, Sussex, N. J.; Assistant Surgeon, Manhattan Eye and Ear Hospital, New York; Surgeon, Bronx Eye and Ear Infirmary, New York.

A most complete and comprehensive book describing the very latest technic in Submucous Resection of the Nasal Septum.

Dr. Dunning's extensive experience in submucous work especially fits him to write an instructive book upon this subject.

Its contents thoroughly covers The Nose—Breathing and Smelling—Common Septal Deviations—Surgical Procedure in Submucous Resection of the Nasal Septum—Special Surgical Procedure—Typical Case Histories and Their Significance—The Saddle-Back Nose, Etc.

The minutest technic of the operation and text is clearly visualized by twenty-five especially prepared drawings. It is the only recent book upon this subject.

While textbooks upon nose and throat work devote some chapters to submucous resection of the nasal septum, their authors cannot devote a sufficient amount of space to comprehensively describe and illustrate the complete technic of the operation and after treatment.

Over 100 pages of text, illustrated by 25 pages of drawings, printed upon heavy coated book paper and substantially bound in cloth. Price \$1.50 postpaid. Surgery Publishing Company, 15 East 26th Street, New York, N. Y.

EPIDEMIOLOGY AND PUBLIC HEALTH. A text and reference book for physicians, medical students and health workers. In three volumes. By Victor C. Vaughan, M. D., LL. D., assisted by Henry F. Vaughan, M. S., Dr. P. H. and George T. Palmer, M. S., Dr. P. H. Volume Number One, Respiratory Infections. Price \$9.00. C. V. Mosby Co., St. Louis, Mo.

Those who have known Dr. Vaughan, especially as we of Michigan know him, welcome this work with more than ordinary interest. For forty or more years he has been known to us and during that period, through his work, he acquired an international reputation. A reputation dependent not upon personality alone, but rather upon the results of his studies, investigations and experiments, as well as his activities upon various commissions that were concerned with epidemiology and public health. After such an active life we are indeed glad that before he lays aside his working clothes he has determined to give to us in textbook form a history and study of the various epidemics and a correlation of his personal observations and experiments in that field of medicine.

This first volume, of a set of three, imparts a

most impressive opinion as to just what this entire text will be. One may well be justified in stating after a careful reading of this first volume, that the entire work will present to the profession the most valuable, most complete and most authentic text in the profession's possession today upon epidemiology and public health. The twenty chapters in this volume covers: Albuminal Diseases, Pollinosis, Acute Coryzas, Pneumonias, Measles, German Measles, Smallpox, Chickenpox, Diphtheria, Scarlet Fever, Mumps, Whooping Cough, Influenza, Tuberculosis, Leprosy, Cerebral Spinal Meningitis, Poliomyelitis, Glanders and Weather and Disease.

In discussing these topics he goes well into the history of each condition, pathology, symptomatology, bacteriology, carriers, preventative measures, etc. It is exceedingly instructive and fascinating reading to trace the progress of several epidemics. Especially is this so of those that afflicted our soldiers and among whom Dr. Vaughan had a wonderful opportunity for scientific investigation.

As the remaining volumes appear we hope we shall have the opportunity of commenting upon them in these columns and to present a final summarization with the last volume. In the meantime we can unreservedly recommend the work and urge that our readers acquire this masterpiece for their study and reference library.

CLINICAL DIAGNOSIS. A textbook of Clinical Microscopy and Clinical Chemistry. By Charles Phillips Emerson, M. D. Fifth Edition. J. B. Lippincott Co., Philadelphia.

A splendid, up-to-date discussion of the subject, in a text that makes its reappearance in its fifth edition completely rewritten. It is modern in every sense. It is not a laboratory manual but rather a reference text that is bound to be of great value to the studious practitioner who relies upon laboratory findings to confirm his diagnosis. It will aid him in interpreting these reports and findings. We commend the text to our readers.

THE FAMILY DOCTOR

I've tried the high-toned specialists, who doctor folks today.

I've heard the throat man whisper low, "Come on now, let us pray."

I've sat in fancy offices and waited long my turn
And paid for fifteen minutes what it took a week to earn.

But while these scientific men are kindly, one and all,

I miss the good old doctor that my mother used to call.

The old-time family doctor! Oh, I am sorry that he's gone,

He ushered us into the world and knew us every one.

He didn't have to ask a lot of questions, for he knew

Our histories from birth and all the ailments we'd been through.

And though as children small we feared the medicine he'd send,

The old-time family doctor grew to be our dearest friend.

No hour too late, no night too rough for him to heed our call,

He knew exactly where to hang his coat up in the hall,

He knew exactly where to go, which room upstairs to find

The patient he'd been called to see, and saying, "Never mind,

I'll run up there myself and see what's causing all the fuss."

It seems we grew to look and lean on him as one of us.

He had a big and kindly heart, a fine and tender way,

And more than once I've wished that I could call him in today.

The specialists are clever men and busy men, I know,

And haven't time to doctor as they did long years ago,

But some day he may come again, the friend that we can call

The good old family doctor who will love us one and all.

—By Edgar A. Guest.

PATRONIZE
YOUR
ADVERTISERS
AND
THEREBY REDUCE
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COST
OF
PUBLISHING
YOUR
JOURNAL

*"Tell Them You Saw It In
THE JOURNAL"*

The Journal

OF THE

Michigan State Medical Society

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No. 3

Original Articles

THE VERUMONTANUM AND ITS RELATION TO HEMATURIA, NOCTURNAL EMISSIONS AND ITS TREATMENT*

ROBERT ROSEN, M. D.
DETROIT, MICH.

In order to make a few points clear you will pardon me for recalling a few facts with which you are all familiar.

Rytina demonstrated the true gross and histologic anatomy of the plant. Embryologically it arises from the united lower ends of the inferior extremities of the Mullerian ducts, which accounts for the glandular tissue and as the clitoris is homologous with the pents, so is the utriculus masculinus homologous with the uterus and vagina.

Histologically, Rytina has differentiated the sinus pocularis into a glandular, a central, and stromal or peripheral portion.

Anatomically, the Verumontanum is a slight ridge in the midline of the floor of the prostatic urethra, lying approximately three-quarters of an inch from the vesical orifice, varying in size and shape in different individuals. On the anterior surface is a slit-like opening. This is the sinus pocularis. On each side of the utricle open the ejaculatory ducts. Between the utricle and the lateral walls of the urethra are the openings of the prostatic ducts. As Rytina has shown the Verumontanum is not an organic entity, but is an elevation formed by the upward extension of the sinus pocularis. There is no known function of this gland. By many it was believed to be of an erectile nature. This has been discredited. In another paper the essayist viewed the sinus pocularis as a gland of internal secretion. As far as he has been able to ascertain, no reference to the endocrinous function of the sinus pocularis was found in the literature.

As the sinus pocularis is a glandular organ it is subject to the same affections as the other glandular structures, i. e., infections, abscesses, cysts, polypus formations, hypertrophy, atrophy, ulcerations granulations, edema, hyperemia, etc.

With the aid of the endoscope the urologist is able, not only to differentiate these pathological conditions of the urethra, but also allows separate intensive study and an analysis of these conditions that help us to correlate the diagnosis and treatment.

In this study the endeavor is to present a brief survey of the association of the Verumontanum to hematuria and nocturnal emissions and the endoscopic treatment of the same, with the report of a few such cases.

The etiology of the Verumontanopathies are various. In every case of hematuria and nocturnal pollutions it is essential to get a complete sexual history. It will be seen that hyper-onanism, hyper-sexual congress, coitus interruptus, sexual stimulation minus gratification, sex perversion, and the urethritides, etc., are the most frequent etiological factors of the verumontanopathies.

The symptoms are well known to you, namely, those referable to (a) the urinary system, (b) those that are referable to the genital system, and (c) those that are spoken of as referred pains. Of these the symptoms we are interested in this paper is hematuria of the sexual system and nocturnal emissions of the genital system.

The hematuria in these cases will show blood in all proportions from uniform mixtures in the entire voiding to only a few terminal drops of pure blood.

As regards nocturnal emissions, what constitutes digression from the normal? When the patient feels depressed and fatigued, and where the pollutions occur several times a week, we will find as a rule some pathology in the posterior urethra in the region of the verumontanum, in these cases.

In these cases we find on endoscopic examinations of the posterior urethra, vary-

*Read before the Detroit branch of the American Urological Association, Nov. 29, 1921.

ing degrees of pathology, from just a marked congestion of the walls of the urethra and utricle, to the various pathological conditions already alluded to. At times the walls are covered with granulations that bleed at the slightest touch. The utricle may be enlarged to twice its size, hyperemic, granular, giving the strawberry appearance, bleeds easily and is especially tender to touch. At other times slight ulcerations may be seen, or polyps or cysts encountered.

The question that arises is what part do these pathological conditions play in the production of frequent nocturnal pollutions, and hematuria, if any, or are they the result rather than the cause.

Sexual function, like the function of any gland, grows with excessive use of it and in these cases we invariably find a history of excessive onanism at some time or other. This causes a gradual congestion of the sex organs, until we get a pathological condition which develops and spreads with the result of pollutions and an excessive sexual appetite, and in some cases hematuria. This is true especially in cases where no history of some irritative infection has existed. In this connection I wish to refer to Randall's article, which should be read by all who are interested in this subject. He says "the sexual misdemeanor, the result of the unsatisfied libido, is the cause of pathological changes in their beginning, but when once established, these changes in turn artificially stimulate the libido and either become overpowering to even the strongest will power, or, if the habit is actually stopped, manifest themselves in the form of frequent seminal emissions on the slightest provocation." A case will illustrate this.

Case 1: J. T. Patient 28 years old. Masturbated several times a day for several years. He then tried to stop and would resort to it only occasionally until two years ago. Shortly after his emissions began and now he reports that they occur three or four times a week and they leave him depressed and weak. On endoscopy only part of the Verumontanum could be seen at a time. It was markedly congested, as were the walls. Several applications through the open endoscope of 10 and 20% Silver Nitrate at 10-day intervals, and Kollman dilations four days following each endoscopy with 1% Silver Nitrate instillations were given. He improved considerably. Has had one emission since treatment. He is still under observation.

Case 2. Another case, E. K., age 24 years, began masturbation at 12 years of age, three or four times a week. No history of sexual excesses. Emissions once a week, but these would depress patient and leave him "all in" following one of these. Endoscopy disclosed a condition similar to Case 1. He responded to Silver Nitrate at

once. In all only two applications were given and it is now six months since patient has complained of an emission. He married and apparently is well.

Another group of patients give a history of acute or chronic urethritis. A number of these patients give a similar history.

Case 3: H. S., patient 22 years, gives history of Neisser infection and epididymitis. This cleared up, but following this he began having emissions 2-3 nights in succession, which he did not have before. Endoscopy showed a cyst on the apex of the Verumontanum. This was incised and Silver Nitrate applied. A discharge began following the treatment which took three weeks to control. He complained of one bloody emission during this time. He was endoscoped and treated five times and now three months after the last one reports himself perfectly well.

A condition which attracted my attention were the cases of hematuria that were the result of some pathology of the "Posterior urethra" and the verumontanum. A few case reports will bring out these facts more clearly.

Case 4: R. M., student referred on account of hematuria. It began two weeks previous with headaches, frequently every half hour. There was no nycturia at this time. One week after onset patient passed a few blood clots, and nycturia began twice, pollutions every two weeks. Denies venereal history and masturbation. Urinalysis showed colon bacillus infection. Cystoscopy showed a slight trabeculated bladder and a mild cystitis. The right ureteral orifice was oedematous, left not seen. Bleeding was seen to be coming from the posterior urethra. Prostate was nodular on the right, and tender. Right kidney was tender on palpation. Endoscopy, when cystitis had subsided, disclosed an inflamed verumontanum. Silver Nitrate was applied once. Kollman dilatation every fourth day, and 1% silver nitrate was given. In two weeks the hematuria was terminal, the urine was clear after four weeks and has remained so. An acid fast organism was looked for on numerous occasions, none found. Patient was discharged to report back in a month if well, or sooner if any of the symptoms returned. This he did not do, but three months later he returned complaining that the emissions have increased to where he has three or four weekly. At this point I insisted on a definite sexual history, and he then admitted that he had masturbated considerably, but had never had sexual intercourse. Endoscopy at this time disclosed a mildly congested verumontanum which responded to treatment. Prostate was negative, urine negative. This case, however, will be watched closely for an acid fast condition.

Case 5: A case a little different was that of patient A. C. P., age 41 years. Gave history of hematuria in 1916, was treated empirically and condition disappeared after seven weeks. Was not troubled again until April, 1920. At this time patients noticed blood and sediment. Again tried pills and prescriptions for two months, but the condition did not clear up. Patient was referred to me May 26, 1920. This patient also complained of pain in region of right kidney. Uniform bloody micturation, no infection found. Cystoscopy disclosed only mild trabeculated bladder, bleeding seen coming from the floor of the posterior urethra. An endoscopy done later showed verumontanum engorged. Applied Silver Nitrate 10 and 20% to mucous membranes. I

then obtained a history of sexual excesses which I did not get at the first examination.

A number of cases have been cystoscoped because the history first given pointed to some lesion in the kidney or bladder, but on withdrawing the instrument bleeding was seen to be coming from the floor of the urethra and endoscopy disclosed the true condition. In treating the Verumontanopathies, it is essential to determine the etiology. In pyogenic cases emphasis must be laid on the termination of the infective processes of the prostate and seminal vesicals and kidneys.

Case 6: One interesting case of hematuria, J. G., following a chronic urethritis, treated considerable by the medical profession. It was referred for diagnosis. Endoscopy showed an ulceration with a dirty serrated edge. Pure silver stick was applied. He denied lues. Several Wassermanns at Harper hospital were negative he said. He had anisocoria and I insisted that he did not give me a true history, but he maintained that he had. A Wassermann was reported, 4 plus. The hematuria stopped and he was feeling fine. His physician put him on anti-leptic treatment after my report. The question in my mind was, were we dealing with only one condition or was the leptic condition simply associated with the pathology the verumontanum presented, I believe that such was the case.

When the Verumontanum was found at fault Silver Nitrate in strengths of 10 or 20 per cent were used. When it was desired to destroy tissue the pure stick was applied. The cauterizations were done at intervals varying from 5 to 10 days apart depending upon the severity of the reaction. After a treatment there may be bleeding for a day or two, usually terminal in character. The number of treatments necessary to effect a cure will depend on the condition present and how it responds to treatment.

Pathology of the Verumontanum produces nocturnal emissions and hematuria as shown in the case reports. These cases give a history of onanism, sexual excesses, urethritides, or a combination of these. Through the increasing and prolonged over stimulation of the sex glands the verumontanum becomes engorged and with this the natural result, both emissions in some cases and hematuria in others.

These cases were presented in abstract to show the importance of endoscopic examination and treatment. The tendency is always to do a cystoscopic and ureteral catheterization, if nothing is found to class it as an essential or idiopathic hematuria. It is not my purpose to belittle the value of cystoscopic examinations. You are all too familiar with these problems to even think that such was intended. But it is a plea for a freer use of the endoscope in these condi-

tions, and to augment rather than to supplement the cystoscope.

It is not my intention to let the thought go out that all cases are promptly and permanently cured by these treatments, though by far the largest number of them are relieved of the hematuria and emissions.

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CANCER WEEK IN DETROIT

HARRY C. SALTZSTEIN, M. D.
DETROIT, MICH

As shown in the accompanying exhibit, Table I, "come early—in the early treatment lies the hope of cure" was impressed upon the profession and the public at large during the recent National Cancer Week by means of:

- (1) Lectures before organized societies.
- (2) Motion picture exhibits and slides.
- (3) Distribution of pamphlets.
- (4) News articles and editorials.
- (5) Free demonstration clinics at all local hospitals.

All the medical societies in Detroit held special cancer meetings. They were uniformly well attended, and, once the purposes of the campaign explained, only hearty co-operation received. A feature was lectures at each motion picture theatre by a physician. A set four-minute talk was prepared, stating that cancer can be cured, and enumerating the early signs—the danger signals for which one must beware—in cancer of the tongue, stomach, rectum, womb, etc. The relatively few facts everyone should know can be very well condensed into a brief talk.

In the more extended lectures before women's clubs, societies, church organizations, etc., it was agreeable to note the popular interest manifested. The truth of the recently repeated assertion that "the public are often more eager to take the doctor into their confidence than the medical profession is to enlighten them" can be vouched for on the basis of cancer week experiences. Women's clubs probably made the best audiences. The family's health is primarily the concern of the woman, and, at these gatherings, a bombardment of questions invariably followed. It was sometimes difficult for the

speaker to narrate just what one should beware of without putting an unwarranted fear of the disease into the minds of the audience, and often tact was required. Thus danger signals of stomach cancer cannot be described as the text book signs of vomiting, extreme loss of weight, pain, etc. To increase cancer cures everyone should be suspicious of any suddenly appearing dyspepsia past forty, etc., and X-ray examination is essential. This description might put the fear of God into any middle aged lady having stomach ache. The indelicacy of talking of uterine bleeding before a lay audience was also a difficulty. However, as Dr. Peterson remarked, it is much better to scare or shock a few provided the mass catch the information desired. It has been the experience of others, and it was our experience during this drive, that people are not often resentful if truths are related in a quiet informative manner.

News articles and editorials were probably the most effective of all the means used. Some difficulty was encountered in listing cancer articles as news, and all the copy submitted was not accepted.

THE RESULTS

Results of such endeavors can at best be measured only indirectly. A vague bit of information about the seriousness of a lump in the breast may remain dormant in the back of someones head for eight or ten years, and then, should the situation arise, be unconsciously resurrected. If that happens, the educational campaign was a success; or if, on being told that a lump should be removed, the patient knows that her doctor's advice is sound, because "she has heard that before," and acts immediately rather than three or four months later, the campaign was a success.

A few direct results, however, are shown in the accompanying table, (Table II) of the special cancer week clinics. In five hospitals, one hundred and eighty-four patients presented themselves suspecting cancer because of what they had heard during cancer week. The great majority were found not to have cancer; there were some who had been or were being treated for cancer; but there were several striking instances where early cancers were diagnosed solely because the patients had learned something they had not known two weeks before.

Mouth. In the mouth, there was one advanced cancer, and three cases of leukoplakia. As Bloodgood* has brought out in a

recent article, cancer of the mouth is a preventable rather than a curable disease. That is, cures of fully developed oral cancer are not frequent, and they have not increased markedly. Cancer of the tongue can only be prevented by treatment of leukoplakia, sores, etc., before they undergo malignant change. Most significant in his series, everyone who applied for treatment for a precancerous mouth condition did so solely because he had read somewhere, or heard at a lecture, that persistent sores about the mouth were dangerous. Hence the significance of apprehending cases of leukoplakia.

Stomach. There were eighteen cases of dyspepsia and ulcer—some marked enough to warrant operative interference. There were also two early cases of cancer of the stomach, and one other which proved on operation to be cancer of the liver. Getting stomach cancers early enough to promise a reasonable chance for cure will always be a difficult problem. A certain proportion follow gastric ulcer—perhaps 60 per cent, and the cure of these is eradication of the ulcer. The remainder start insidiously, with vague dyspepsia, and have often invaded the lesser omentum by the time severe symptoms are manifested. In the recognition of this type, our figures probably represent the average—twenty gastric cases must be thoroughly studied to find one or two cancers—an argument for thorough investigation (including X-ray) of all dyspepsia in middle life. Surgeons of widest experience in malignancy have died of carcinoma of the stomach, which they did not suspect for several months, complaining only of dyspepsia, anemia and loss of weight.

Breast. Results here were gratifying. There were eighteen tumors for which operation was indicated, about half probably early cancers. Women are surely coming to the physician earlier for breast tumors. A recent analysis of Harper Hospital statistics* showed that the average duration of the disease before operation had, within a few years, decreased from seventeen months to ten months. Ten months is far from satisfactory—most cases have already invaded the axilla by that time. Earlier diagnosis is a severer responsibility upon the physician—the diagnosis is much more difficult.

Uterus. There were seventeen cases; one cancer, eight pelvic tumors, eight leukorrhoea, cervicitis, etc.—not so many when one considers the relative frequency of cancer of this organ. This may be an answer to

*Bloodgood, J. A. W. A., Vol. 77, 1921, 1381.

*To be published.

the objection that talking about hemorrhage from the womb is indelicate. The only way to warn people is to describe this symptom as tactfully as possible, but, nevertheless, quite plainly.

Rectum. Here also cases were few. Perhaps the chief prophylaxis in cancer of the rectum is a highly digital examination in every case of suspected bleeding hemorrhoids. One hundred to one hundred and fifty negative examinations may be followed by one which demonstrates an adeno-carcinoma above some bushy hemorrhoids.

Skin. The number applying here (forty-one) was far in excess of the relative frequency of cancer in this region. There were among these seven epitheliomas and two pigmented moles, one of which showed suspicious ulceration.

Summary. It can thus be seen that definite results were accomplished. The warning for easily visible cancers—skin and breast, was apparently delivered to the audiences much more effectively than were the signs of bowel or uterine carcinoma. Stomach cancer occupied a mid-position. For further educational work, this may mean increased stress upon the early signs of cancer in these latter situations, and frankness in discussing internal bleeding, etc. Only by having certain information will people report for examination of early signs of malignancy. In cancer, the dictum that passing surgery done early is better than the most skilful dissection performed later is as true as it is in appendicitis or intestinal obstruction.

One week's publicity, no matter how extensive, can only be a "flash in the pan." To definitely and steadily lower cancer's 90,000 annual toll will require much more persistent and extensive efforts on the part of the profession. The facts the public should know are relatively few (not so, however with the medical profession), but the audience is almost unlimited and the lesson must be repeated occasionally.

TABLE I.

REPORT ON ACTIVITIES OF NATIONAL
CANCER WEEK FOR THE CITY
OF DETROIT, MICH.

SUMMARY REPORT

	General	Movies
A. Number of lectures delivered...	42	125
1. Total number of persons reached by lectures.....	3,150	60,000
B. Amount of literature distributed (number of pieces).....	80,000	
Chiefly Vital Facts about Cancer.		
C. Number of news articles and editorials printed	17	
1. Number of moving picture theaters in which slides were shown in Detroit. (Approximately)..	125	

DETAILED REPORT

A.	Lectures before.	Number	Attendance
	Professional and scientific bodies	5	400 Phys.
	Public audiences under auspices of Medical So.	3	800 "
	Meetings for Medical students	0	
	Meetings for other undergraduate college students..	0	
	Meetings for nursing organizations	3	250 "
	Meetings for nurses in training	7	500 "
	Meetings in schools for health officers	0	
	Meetings for Women's clubs	8	600 "
	Meetings for welfare, social service and charitable groups		
	Meetings for chamber of commerce and board of trade	2	100 "
	Meetings for manufacturers and merchants associations		
	Meetings for labor unions and trades councils.....	0	
	Meetings for ministerial and other clerical groups. (Circularized)	500	Clergymen
	Meetings for church clubs, (men and women) and pulpits	16	18,000
	Meetings for Rotary and Kiawanis clubs	2	300
	Meetings for fraternal orders and lodges	0	
	Meetings for Y. M., Y. W. C. A. & Y. M. & Y. W. H. A.	0	
	Lectures in 125 motion picture theaters by 125 physicians (four minutes).		
B.	Literature Distributed:		
	80,000 Vital Facts about Cancer.		
	500 Lecture outlines.		
C.	Publicity:		
1.	Number of news articles	15	
	Number of editorials	2	
	Number of articles in Medical Journals... (Entire issue of the City Health Bulletin).	1	
	Number of editorials in Medical Journals (Wayne County Medical Bulletin)	4-5	
2.	Number of slides prepared for moving picture theaters	2	
	Number of theaters to which they were sent	125	
	Number of times shown in each theater One slide at each performance during the week preceeding Cancer Week; one slide during Cancer Week.		
	Approximate number of persons reached	60,000-75,000	
3.	A letter from Mr. Richey, General Manager of the Mich. Motion Picture Theater Owners Assn., to all the theaters in Michigan was sufficient entree in 85% of theaters in Detroit. 12-15 large houses, controlled by Kunsy & Co., refused to assist. Except for these, there were less than six refusals in 150 Detroit theaters.		
4.	Number of showing of film "The Reward of Courage"	6	
	Attendance	1,150	
D.	Number of demonstration clinics held. Daily during Cancer Week at 7 hospitals. At 5 hospitals, 154 persons presented themselves suspecting cancer.		
E.	Any suggestions or information: Very well received. Many inquiries at board of health and Wayne County Medical Society when and where clinics were to be held. Many phone calls after Cancer Week.		

TABLE II.

Hospital.....	Harper	Grace	Ford	Providence	St. Mary	Receiving	Total
Total number patients...	39	25	37	33	30*	20*	184
Mouth							
Cancer			1				1
Leukoplakia	2	1					3
Osteomyelitis		1					1
Oral Inflammation		1	1			1	3
Pharyngitis			1	2			3
Benign Tumor	1	1		1			3
Negative		1		1			2
Stomach							
Cancer	1			1			2
Cancer—liver				1			1
Dyspepsia, ulcer	6	5	1	4	1	1	18
Abdominal pain	2			2		1	5
Appendicitis			1			1	2
Colon							
Carcinoma cecum				1			1
Colitis mucus			1				1
Rectum							
Carcinoma (recurrent)			2				2
Hemorrhoids		1	1				2
Fissure		1					1
Pain		1					1
Breast							
Tumors	4	2	1	6	4	1	18
Chr. cystic mastitis	1		1	4			6
Induration scars	1						1
Adenopathy axilla	2						2
Recurrent cancer	1						1
Eczema both breasts				1			1
Negative	2						2
Uterus							
Carcinoma		1					1
Pelvic tumor		2		4	1	1	8
Endocervicitis, Prelapse	2	2		1	3		8
Skin							
Epithelioma	2		4		1		7
Papule, wart, Keratosis	4	1	3			2	10
Benign tumor	1		6	1			8
Sebaceous cyst	2		5	1	1		9
Lues		1					1
Dermatitis, etc. Eczema, inflammation	1	1	1				3
Pigmented mole			2				2
Erosion, scar	4	1					5
Metastatic cancer			1				1
Precancerous lesion							
Examination negative.		1	2	2	9		14
Arthritis			2				2

*Returns incomplete.

PYELITIS OF PREGNANCY

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INTRODUCTION

Rayer of Paris in 1841 is credited by Molina as the first to recognize and describe a pyelitis of pregnancy. Since this time and the advent of careful microscopic examination of the urine, and cystoscopy we have a great many worthy reports on this condition. Connected with every obstetrical practice it is incumbent on the practitioner to examine the urine, not only to note that albumin is present, but to determine the micro-pathology of the same. I am not restrained in saying that many cases of pye-

litis in pregnancy are overlooked, and other conditions attributed to an attack of pain in the abdomen with or without a rise in temperature, and with a marked or but little prostration. Further, as pyelitis may run a course that imitates a short typhoid or influenza it can be easily missed in the non-pregnant woman, so can it be "passed up," as it were, during pregnancy. Again, occasionally I do not doubt where we have a so-called puerperal fever and recovery in five to ten days with no odor or change in the character of the lochia, that the case might have been of urinary origin, especially where no micro-examination of the catheterized specimen of urine had been made.

The importance of this complication cannot be gainsaid, although I believe we have but one to three per cent of obstetrics infected. The statistics are anything but complete in this matter on account of the indifferent reports on hospital groups and that most parturient women are cared for by the busy general practitioner. Although we treat this condition as a complication, I am taking the liberty to treat it as an entity disease in order to give a fuller understanding of its relationship.

ETIOLOGY AND PATHOLOGIC ANATOMY

As the etiology, symptoms and treatment depend to such a great extent on the anatomical relationships it is well to be reminded of the fact that, as the uterus enlarges in pregnancy, and this applies to the enlargement as early as two to three months, the lower portion of the ureters are drawn out of position, somewhat kinked, and pressed against the pelvic bones, especially at the brim. In other parts of the body, any displaced organ is more susceptible to infection than when in its normal relations. No doubt a part of the trigone irritation—frequent urination of the beginning of pregnancy—can be attributed to the distortion of the lower end of the ureter rather than pressure on the bladder.

The infective micro organism enter in four ways. Namely:

First. Hematogenous from some infected local area.

Second. Through the lymph spaces from infected adjacent organs.

Third. Ascending the lymph spaces in the ureter wall.

Fourth. Ascending from the bladder in the ureteral lumen.

Grouping the predisposing causes, we have the following:

First. Pressure and distortion of the ureter.

Second. Venus congestion of pregnancy as recognized by C. B. Reed in 1907.

Third. Chronic partial obstruction from old cicatrix or recent inflammatory obstruction of the ureter, or bladder, or urethra.

Fourth. Exposure to cold.

Thirty to seventy per cent of the infections according to various authors are from the colon bacilli and are therefore of intestinal origin. Any stasis of the intestinal contents or infection of the intestinal wall as ileitis, colitis, appendicitis, fistulae or any organ connected with the intestinal lumen coupled with the predisposing cause are elements to incite infection of the pelvis of the kidney. Constipation and slight gastro-intestinal disturbances are rather common in pregnant women.

Streptococcus and staphylococcus are the next in order to colon bacillus. Other organisms are rarely found although one would certainly think of the gonococcus as a cause where there is a chronic infection of the urethra with some obstruction.

Any infection of the bladder of an acute or chronic nature or infective germs inserted by simple catheterization can easily be the source.

Usually, according to most experiences, and mine well substantiates this, the right pelvis is involved alone, but we may have an unilateral left sided infection or a bilateral involvement also. As the colon bacillus is the most common etiological factor, and chronic appendicitis is so very common especially in the young adult, we can readily conceive that these two elements would predispose the right kidney pelvis rather than the left.

The lymphatics of the ureter and the pelvis of the kidney play such a large part and are more intimately associated with the lymphatics of the pelvis and the posterior abdomen than a casual observation would show. I have thoroughly outlined before this Society, at a former time, the paths of, and the ease with which infection travels along the lymphatics of the pelvis, bladder and posterior abdomen to the kidney and its adjacent pelvis. We are greatly indebted to D. C. David for this experimental proof which, briefly, is as follows:

"In unobstructed bladders, infection may ascend the lumen of the ureter which is rather uncommon. In partially or totally obstructed bladders infections most frequently does ascend by the lumen in a shorter time than the periureteral lymphatics. The presence of a peri-vesical infec-

tion encourages a quicker extension to the pelvis of the kidney, or the kidney or the peri-renal region."

SYMPTOMS

The acute form may develop suddenly with some pain in the lumbar region, most commonly the right with a rise in temperature from 99 degrees F. to 104 F. with a usual history of some, more or less, frequency of urination for hours or days before. Nausea and vomiting are rather common.

The pain may be entirely absent or may first be diffused over the entire abdomen radiating to or from the lumbar region and lower limbs, or may soon localize in the lower lumbar regions, going down the ureter or ureters with urinary tenesmus. The pain may suggest labor pains, appendicitis or the pains of any acute abdominal pathology. There may be tenderness, and most commonly is present, early in the disease on pressure in the kidney region and along the ureter.

The symptoms of pain, fever, prostration, last with decreasing severity from three to ten days in a favorable case, or the case may be cured, chronic or a latent one, with no symptoms whatever except pus in the urine. When the urine has not been cleared of pus and micro-organisms, we will have recurrences with later pregnancy and also at times pyelitis in the intervals.

The urinary and cystoscopic findings are of the greatest importance because a thorough differential diagnosis and treatment hang entirely in these fields of examination, if we are to give the patient the most favorable prognosis.

The urine may be entirely free of any putrid odor, of albumen, and of pus, if the ureter is obstructed on the side of the pyelitis, but if not, we will find an acid urine, most commonly, with a putrid odor if the colon bacillus is present, cloudy, containing a varying amount of albumen. The presence of colon bacilli gives a positive indican test which signifies nothing when there is intestinal stasis. The interesting element in the microscopic findings is the varying amounts of pus with cells that we can recognize, by experience, as coming from the upper urinary canal. Red blood cells in small numbers are not uncommon. The bacteriological findings will determine the exact etiology.

The cystoscopic results are the most interesting as this perfection in diagnosis, which is harmless if done properly, segregating the

urines separately from the two kidneys, gives us the exact location of the infection, and, at the same time, a definite method of attack, drainage and direct application.

DIAGNOSIS

Acute pyelitis may be mistaken for beginning pneumonia, but the usual history with the examination of the chest, sputum and abdomen and a careful examination of the urine will set one on the right path. This applies as well to acute pleurisy.

Between appendicitis and pyelitis the diagnosis may be difficult when the latter is right sided. Pain in McBurney's region, rigidity of the right rectus, and negative urinary signs will definitely clarify the diagnosis. The pain of typical pyelitis is costo-vertebral.

If the pyelitis accompanies an acute or chronic appendicitis, the practitioner must make a careful analysis of the history, physical and other signs in order to draw the proper conclusions which, under these conditions, would need the most careful analysis.

Cystoscopy with the catheterization of the ureters will clear matters when drainage is established. Other conditions that must be considered are pelvic infection, Meckel's Diverticulitis and other diverticulites, twisted pedunculated tumors, nephritis and other abdominal infections, as gall bladder disease and pancreatitis. With the help of the microscope and the cystoscope conclusive evidence can be obtained.

Pyelography cannot be done without considerable danger and the information obtained will not, therefore, justify the procedure.

The degree of leucocytosis has no diagnostic nor prognostic differentiation to offer us.

PROGNOSIS

The large proportion of cases recover with drainage and diuretics.

The prognosis depends upon various elements.

First—Upon the severity of the infection and whether the drainage can be established. Total obstruction of the ureter increases materially the danger.

Second—Whether the kidney has been too severely involved.

Third—Upon the character of the primary etiological factor, chronic obstruction, the type of infection, etc.

Fourth—Whether labor must be terminated will determine the prognosis of the

foetal development and increases the danger to the patient.

Fifth—The careful diagnosis and the type of treatment will determine whether the case will become chronic and become a menace to the patient, post parturient, recurring with subsequent pregnancies. Furthermore, calculi, pyonephrosis, hydronephrosis, stricture of the ureter with their sequelae may be traceable sometimes to uncured infections during pregnancy.

We must take careful note of these elements in order to give the patient a favorable prognosis if possible.

TREATMENT

Modern authorities do not vary to any extent in the proper treatment of this condition. It depends upon the severity and the length of time the disease has been present. The following are to be considered under this heading.

First—Rest in bed.

Second—The diet should consist of non-irritating and non-stimulating foods. Plenty of milk and water should be urged.

Third—Under medicinal, we have urotropin which used properly, serves us the best, although foreign authors laud the use of salol. (Molina, Gammeltoff). The former should be used in an acid urine. Diuretics and altered position alone occasionally cure mild cases.

Fourth—The most important, if the case is at all obscure or does not respond properly to the above measure, is cystoscopic examination which should be made and the pelvis of the kidney or kidneys treated directly. Kratchmar was one of the pioneers in pelvic lavage using 0.5% silver nitrate. This procedure outlines the degree of obstruction, the extent of the pathology, permits a thorough urinary and bacteriological diagnosis and also permits of direct prognosis and treatment. In my experience immediate relief and improvement resulted when drainage was established through the urethral catheter and 0.5% of silver nitrate or 0.2 argyrol was carefully injected.

It hardly would be good surgery to drain a kidney pelvis through a lumbar incision to relieve pressure in a pregnant woman for pyelitis unless it was established that the ureter was totally obstructed beyond the possibility of a passage of a urethral catheter. When the diagnosis is properly made and there is danger to the patient of uremia or pyonephrosis or sepsis, confidently open and drain the kidney pelvis feeling that the consequences were thoroughly justified.

Again, if ureteral drainage per ureteral catheter does not relieve the patient and faulty drainage recurs with severe infection, it may be necessary to terminate the pregnancy. As an example of the last type I wish to mention a specific case. She was a primipara, 28 years of age whose personal history contains nothing of importance, who developed a double pyelitis at the sixth month with much pus in the urine, but little tenesmus, and a temperature ranging to 100 degrees F. The symptoms decreased following the catheterization of the ureters, and lavage, but the urine still contained pus. At the end of the ninth month, at the expected time of labor, she became ill with pains in the loins, increased pus in the urine, and a temperature of 102 degrees F. It was decided to precipitate labor which was done and the patient had a successful confinement with a normal recovery without any rise in temperature. The pyelitis disappeared.

I wish to report two more cases to illustrate the method of treatment:

Case 2: Mrs. O. T., who is married, age 23 years, having one child and now pregnant six months.

Family history. Father is 67 years, an inmate of the State Asylum for the Insane. Mother 62, in fair health. Patient is the fifth of eleven children all living except three. One sister who was married, died at 25 from cerebromeningitis probably T. B. C.; one brother died of diphtheria at 8 years of age and also a brother died at 30 years of age from pulmonary tuberculosis.

Personal history. Her history contains some interesting points as she had a dry pleurisy at 16 years, but apparently recovered, although at that time I accused her of incipient tuberculosis and treated her with tuberculin.

With her first pregnancy she developed a nephritis with considerable edema, but was delivered normally without any eclampsia. On Feb. 1, 1916, I operated her for chronic recurrent appendicitis and a Parovarian cyst with good recovery.

I was called on Oct. 1, 1916 because of pains in the right side of the abdomen. She had been troubled for two months with these pains, frequent urination, tenesmus at times, and slight chills, but lately the pain increased. The temperature was 99.9 degrees F., pulse 100. The general examination was negative except for a tenderness in the right kidney region and along the right side. Her abdomen showed a pregnancy of six months. The urine examination disclosed cloudiness, moderate acidity, 1015, albumen ++, sugar negative, indican +, and sediment contained much pus, few r. b. c. and epithelial cells few in number of all descriptions. No casts were present.

I advised a cystoscopy and treatment which was done Oct. 5, 1916. The bladder appeared normal but the right ureter opening was pouty. The catheterized specimen from the right ureter contained pus while the specimen from the left was negative. Lavage with 0.5% silver nitrate was done. This certainly relieved the symptoms and the pus practically disappeared from the urine,

but not absolutely. The pain was relieved and the temperature remained normal following the third day.

She was delivered on Jan. 1, 1917 with a rapid, normal labor. Since that time she has had three full term pregnancies and only during this last one did she have a slight recurrence of pus in the urine without any symptoms. She was delivered last week with number five.

Cast 3: Mrs. C. L., age 25 years, married on April 15, 1917, the last menstruation occurred May 10, 1918. History taken Nov. 24, 1918. Family history: Mother and father are living and in good health. Patient is the second of eleven children, all of whom are living and in good health. Entire family have goiters. Family history contains no tuberculosis. Personal history: Practically negative. I was called Nov. 24, 1918 on account of a frequent urination. I found a primipara, rather thin, and pregnant six months. Her temperature was 103.2 F. Pulse 110 to 120. She had frequent micturition and tenesmus and a pain in the right kidney region. Examination disclosed the heart normal, slightly enlarged thyroid and chest negative except for a decreased expiration in the right apex and a few soft moist rales.

The urine specimen was cloudy, moderate acidity, 1010, albumen +, sugar negative, and indican +. Sediment had a moderate amount of pus with very few r. b. c., no casts found. Epithelial cells in moderate number were caudate, circular and few columnar with granules homogeneously scattered throughout. Rest in bed, careful diet and urinary antiseptics did not check process, although the temperature dropped to 100-101.9 F. as the hospital chart demonstrates. She entered the hospital Dec. 4, 1918. I cystoscoped her Dec. 5, 1918 and lavaged the renal pelvis with 0.5% silver nitrate and injected 2% argyrol in the bladder. The bladder was moderately injected and the right ureter alone gave pus. She left the hospital Dec. 8, 1918. The accompanying chart demonstrates the result of the lavage.

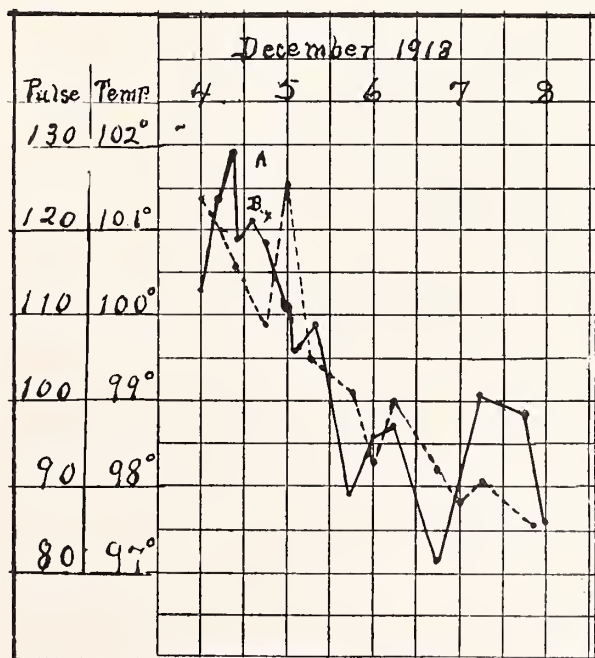


Fig. 1. Case 3. Mrs. C. L.
Solid line, temperature; broken line, pulse;
A, bath; B, cystoscopy.

It was not necessary to repeat this process and the urine remained clear soon afterwards. The bladder urine gave a colon bacillus and was negative for the t. b. c., according to the state laboratory findings.

It is interesting to note that the patient later developed a cough and the lung signs did not increase in severity, but the sputum contained tubercule bacilli just before delivery. She had a moderately severe labor and was delivered of a living girl of 6½ pounds at full term on Feb. 17, 1919. It was necessary to put her on a fresh air diet and rest-in-bed-cure until May, 1919, when the cough had ceased and she had gained in weight. Now she is in apparently good health with a very healthy child and there has been no recurrence of the pyelitis nor tuberculosis.

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THE LUETIN TEST IN LATENT SYPHILIS

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Luetin, as a test for syphilis, was first produced by Noguchi in 1911. The test depends upon an anaphylactic skin reaction. The theory is that a syphilitic person develop within the body a protein enzyme which acts as an antibody and that the Luetin reaction is the result of the action of this antibody and the killed spirochetes.

Wolfsohn, Ziegel, Cohen and Rytina in a large number of cases, have reported it nearly 100% successful in congenital, latent and tertiary syphilis. In primary syphilis up to the exanthematous stage, Luetin positive reactions were found in only 25% of the cases. DeBuys and Lanford in 1916 reported 80 cases of congenital syphilis, in which the Luetin was positive in 96%. Many of these cases gave negative Wassermann reactions.

COMPOSITION OF LUETIN AND METHOD OF GIVING

Luetin is a suspension of killed *Treponema Pallida* in ascitic fluid and agar media, while the control contains ascitic fluid and agar media without the destroyed *Treponema Pallida*. The Luetin and con-

trol are both given intracutaneously, preferably on the upper arm about at the deltoid insertion and about two inches apart. The amount given should form a papule about ½ cm. in diameter. Two tests can be secured from each ampule as put out by commercial houses.

For the past year the Luetin test has been used together with the Wassermann test, history and physical findings; as an aid in the diagnosis of latent syphilis at the prenatal clinic of the Detroit Department of Health. In this report there are 126 cases, 54 of which are definitely diagnosed latent syphilis; 60 cases of negative syphilis and 12 cases of doubtful diagnosis. The reason of our report dealing only with latent syphilis is that practically all of our cases present themselves at the clinic with no active symptoms.

SYPHILITIC CASES

Of the 54 diagnosed syphilitic pre-natal mothers, 42 gave positive Luetin reactions, with 12 negatives, a percentage of 77.6 positive reactions. In the same series of patients there were 45 positive Wassermanns with none negative, or a positive percentage of 83.3. As compared with the Wassermann reaction the Luetin test agreed in 93.3% of the cases.

NON-SYPHILITICS

Of the cases which are definitely diagnosed as non-Luetic, that is, those patients having negative history, negative physical findings, negative Wassermanns, and whose pregnancy terminated in normal, living children, there are 56 negative Luetin reactions in the 60 cases, with four positive reactions, or 94% negative reactions. As the Wassermann was negative in all of these cases, the Luetin agreed with the Wassermann in 94% of the cases.

DEFINITE AID

In seven cases all with negative Wassermann and six of which gave positive Luetins later on at termination of pregnancy proved to be syphilitic either by condition of child, cord Wassermann or autopsy.

SUSPICIOUS CASES

These 12 cases have two or more physical findings of syphilis as pupil irregularities, enlarged glands, sluggish or irregular reflexes. In addition most of these give a suggestive history of miscarriages and premature stillbirths. In these cases we were unable to secure a report on the outcome of the pregnancy due to delivery outside of hospital. Eleven gave negative Wassermanns, the others a two plus cholesterinized

antigen, while all 12 gave a positive Luetin reaction.

EFFECTS OF POTASSIUM IODIDE

Sherrick and Kolmer, reporting independently, have shown that Luetin and also agar controls become positive after the patient has taken Potassium Iodide and that these positive reactions occur not only in Luetic cases, but also in non-Luetic cases. They therefore conclude that a positive Luetin has no diagnostic value in cases which have taken potassium iodide. In four of our cases which had negative Luetin for 15 days and then were given potassium iodide, developed positive reactions in eight days.

TIME OF OBSERVATION

The average period of time for these reactions is 15 days, and many of these cases react even longer than this, so that we do not think a positive or negative Luetin should be decided until the end of three weeks with weekly observations. If this period of time is given, practically all the positive reactions will become pustular, leaving no question as to the interpretation. These pustules usually break by themselves, leaving a small scar. In our clinic we accept only pustular reactions as positive tests.

CONCLUSIONS

We have found Luetin to be of a definite aid in the diagnosis of latent syphilis and feel that it should be used as routine as the Wassermann, in an effort to secure 100% diagnosis of syphilis.

REPORT AND TREATMENT OF AN UNUSUAL CASE OF OBSTRUCTION OF THE BOWEL ASSOCIATED WITH HYDRONEPHROSIS

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The patient is a well developed and healthy looking lad of 16 years of age. Father, mother and three brothers living and in good health. He has never had any serious illness other than diphtheria at the age of 11 and measles at the age of 12 until the age of 15 or about one year ago, he had severe pain in the left side, of rapid onset, and extending into the urinary bladder. At first the pain and symptoms in general were similar to the distress one sees in renal or ureteral calculi, but it shortly became localized and seemed to be more anterior around the region of the splenic flexure of the colon. The attack continued two weeks with partial obstruction of the bowels the second week. Simultaneous with a

thorough purging the pain left and the patient was well.

During this time quantitative and qualitative urinary tests were made and were normal. Following this, the first attack, he was in perfect health for three months when he had a second, and sharp attack of "gravel pain" which lasted three days. Two months later or about June 1, 1921 he began having constant pain in the left side and June 10, remained home from school and was confined to his bed June 12. During this illness the attending physician made repeated urinary tests which were negative. The morning of June 16, the case was referred to me by Dr. Young for emergency operation for obstruction of the bowel. I found the patient greatly distended and with pain all over and through the abdomen and he had been vomiting fecal material for three hours. The enemas were coming away clear and there had been no response to catharsis. He entered the hospital and I operated shortly after I saw him.

Operation began at 10:45 with a high left rectus incision. Structures were normal down to intestines which were greatly distended and injected, but otherwise normal. The intestinal obstruction I found to be caused by a tumor from the left kidney which extended into the abdomen. The splenic flexure and a portion of the descending colon was lateral and behind the tumor and was completely "pinched" between the lateral abdominal wall and the mass. There were no adhesions involving the descending colon or any pelvis pathology. The abdominal incision was closed and the patient placed in the left kidney position. My mode of approach was by the supra-iliac incision and triangle. I entered the hilum of the kidney and drained about 2000 c. c. of urine. The kidney was very much enlarged, but otherwise apparently normal. I followed the ureter down about 5 to 6 centimeters but could find no stone or kink and with my patient in considerable shock, I deemed it unwise to work too long, so sutured a rubber tube in the hilum and closed the incision.

At 5:30 p. m. the same day he voided eight ounces of bloody urine, indicating the left ureter was functioning. Small amount of bloody urine draining from the tube. At 7:00 p. m. bowels began to move with small amount of bloody discharge between movements. At 12:00 a. m. second day, temperature 100.4 pulse 104, respirations 22. No more blood in the urine, but still some in the stools. The blood in the stools cleared up the fourth day. The tube was removed the seventh day and the urinary fistula was healed the twelfth day. The patient was taken to his home the morning of the twelfth day. He was in good health the remainder of the summer with the exception of one day (Aug. 15,) he had a short attack of pain.

The boy started to school the first of September and was well until Oct. 7, when he again became severely ill with pain, obstruction of the bowel and obstruction of the left ureter. X-ray examination showed no stone present and in view of the fact that about 50% of the cases of hydronephrosis spontaneously recover if drained, and some even if left alone, I decided to have Dr. Hugh Cabot see him in consultation before any further operative treatment was attempted.

Dr. Cabot could not pass the catheter up to the kidney. Fluid could be freely and with little force injected into the kidney, increasing the patient's pain, but there was no return flow or

drainage from the ureteral catheter. The skio-graph shows very plainly the location of the kink. The treatment the doctor advised was nephrectomy.

He was taken to Ann Arbor October 9, brought home to Cass City October 10, and the morning of October 11, I did a nephrectomy. The kidney was much enlarged, measuring 29.62 centimeters in length and 11.80 centimeters in width and weighing 233 grams, with the cortical substance .1312 centimeters in thickness. The kidney had been so ballooned or distended with water that its functioning power was nearly destroyed, so that for some time the right kidney had no doubt been compensating. The patient made an uneventful recovery and left the hospital the tenth day following the operation. The amount of urine passed October 25 (24 hours), four days after leaving the hospital, was 34 ounces. The diagnosis was congenital kink of the left ureter.

I take this opportunity to thank Dr. Cabot and his assistant, Dr. Eberbach, for the courtesy shown me while I had the case in Ann Arbor.

Discussion by Dr. Cabot.

DISCUSSION

This patient of Dr. McCoy's presented two conditions of special interest. In the first place, hydronephrosis not due to inflammatory conditions or to stone; and second, intestinal obstruction arising from this cause. This type of hydronephrosis is undoubtedly congenital and though the earlier books upon the subject lay much stress upon abnormal implantation of the ureter into the pelvis of the kidney, I think it is now believed that they must commonly result from the presence either of an abnormal artery to the lower pole of the kidney which crosses the renal pelvis, or to some abnormal band. In the presence of either of these conditions a very slight sagging of the kidney will produce some obstruction which then creates a vicious circle in which the greater the distention the more complete becomes the obstruction. These patients almost always begin to have symptoms in relatively early life—even between the ages of fifteen and twenty. The systems are characterized by severe pain, often referred to the epigastrium or upper abdomen, that frequently disappears spontaneously and it is not unusual to see patients in early middle life who have had these attacks for many years without a positive diagnosis being made.

Turning now to the question of intestinal obstruction, it is common in these cases to have very marked gastro-intestinal symptoms, particularly vomiting and distention. True obstruction, such as was found by Dr. McCoy, is in my experience very rare, but symptoms suggesting obstruction are pretty common, and may perhaps depend upon interference with the blood supply of the large intestine to an amount just short of that sufficient to produce real obstruction. The management of this case appears to me to have been sound throughout. To have removed the kidney at the first operation might not only have subjected the patient to an unnecessary risk, but might also have involved the removal of a kidney which might still be useful. The operations which have been planned to alter the implantation of the ureter into the renal pelvis by various forms of plastic surgery have as a rule been unsuccessful and are not to be advised except where the condition is seen early and the amount of kidney damage is small. In this case nephrectomy was clearly indicated.

MALIGNANT TERATOMA OF THE KIDNEY

Case Report—Patient 6 Years Old

LEO DRETZKA, M. D., F. A. C. S.
DETROIT, MICH.

Teratoma of the kidney is a comparatively rare disease. A review of the literature of similar tumors discloses an unsatisfactory grouping. Reporting all cases will assist in bringing about a more specific classification.

Irene P., age 6, well nourished child of normal weight and height. No early history of any moment. Family history as to tuberculosis, malignant, cardio or renal diseases negative. Present illness began or was first noticed in January, 1921. A brownish muddy like urine on micturation which was thought to be of no significance and was disregarded by the parents. The muddy like urine was not constant but reappeared about once each week. Four months later, the mother noticed a small nodule (walnut size) in the upper left quadrant. It was hard but not tender and within five months it grew to the size of a large grape fruit. The child slept well, did not complain of pain and her appetite was good. Examination disclosed an abdomen of uneven outline. A mass was visible in the left hypochondrium and lumbar region about the size of a child's head. It was slightly movable, regular in outline and firm in consistency. There were prominent superficial veins on the abdomen.

Her Von Pirquet tuberculin test was negative. Wassermann negative. Urine showed a small amount of albumin, some pus cells and considerable red blood cells. The amount of urine secreted was normal. Blood count was of no importance.

Radiographic examination of the left kidney shows a dense homogeneous shadow much larger than a normal kidney. The outline is indistinct and lacking definiteness due to the respiratory movements of the diaphragm.

An attempt to catheterize the ureters was unsuccessful.

Operation—lateral abdominal. An incision was made on the left side in the linea semi lunaris from the lower border of the rib to an inch below the umbilicus and from the center of this incision and right angle to it another incision was made to the left for more ample exposure. The kidney on the opposite side was palpated and found apparently normal. The lateral layer of the mesocolon was incised and the tumor exposed. The colon passed over the mass and was adherent to it. The bowel was freed without difficulty and pushed towards the median line. The ureter was exposed, clamped and tied and allowed to retract. The vessels were ligated, the mass delivered and all bleeding controlled. The anterior edges of both peritoneal wounds, that of the abdominal wall and of the mesocolon, were united by interrupted catgut sutures and the abdomen closed.

During the operation, the patient was stimulated with 250 c. c. of normal saline, subcutaneously.

Her recovery was uneventful.

PATHOLOGICAL REPORT

Gross: The kidney was 33 cm. in circumference around the pelvis laterally. The long circum-

ference, which was the greater, was 38 cm. The antero-posterior width was 12 cm. The length was 15 cm. from pelvis to cortex, the length was 10 cm. The weight was 880 grams. The sectioned surfaces showed displaced compacted kidney structures in the poles. In one pole this tumor was 3 cm. deep and the lower surface formed the

formation. There was no part of the original kidney structure preserved, excepting a deformed atrophic part of the pelvis which was found at figures 1, 5, 6, and 7. The embryonic connective types of tissue were found, all being parts of new growth architecture. These consisted of embryonic connective tissue, epithelial structure and cartilage



Longitudinal Section of the Kidney.

Figures indicate the areas where sections were taken for pathological study.

mucosa of the pelvis. The depth of the tissue at the other pole was 1.5 cm. The convex cortical surface displayed a thickened capsule in part of the extent of the surface and in certain parts a narrow compressed kidney structure. This varied from 1 mm. to 1.5 cm. in depth. The new growth was light in color and much softer in consistency than the kidney tissue. One subcortical area had a cyst 2.5 cm. in diameter. There was a thin and well defined capsule surrounding this area. Some smaller cyst cavities, varying from 3 to 6 cm in diameter, were seen directly beneath the cortex. The renal artery was intact for a distance of 3 to 4 cm. The external surface showed some nodulation and at one pole the new growth had broken through the capsule producing a hernial mass of 6 cm. in cross diameter.

Micro: The sections studied were taken from seven different areas as indicated by the numbers upon the picture of the gross specimen. Three

tissue was richly produced at figures 1, 3, 5, 6 and 7. At figure 4, rich well defined cartilage with many giant cells had developed. The differentiation of some of the connective tissue was not well developed. In some areas a distinct endothelial character was observed. The new growth had well defined characteristics of malignancy and a histogenesis of the several tissues must be traced from undifferentiated mesoderm and from scleroto structure.

Diagnosis: Malignant teratoma of the kidney in a patient 6 years.

ROENTGENOLOGICAL DESCRIPTION OF THE PELVIS AND CALYCES

The contour of the pelvis with its calyces resembles very much the figure of a seal. It is long and somewhat cylindrical. Its outline is perfectly smooth and clearly defined at all points. There is not a suggestion of haziness present. The superior major calyx, which looks very much like

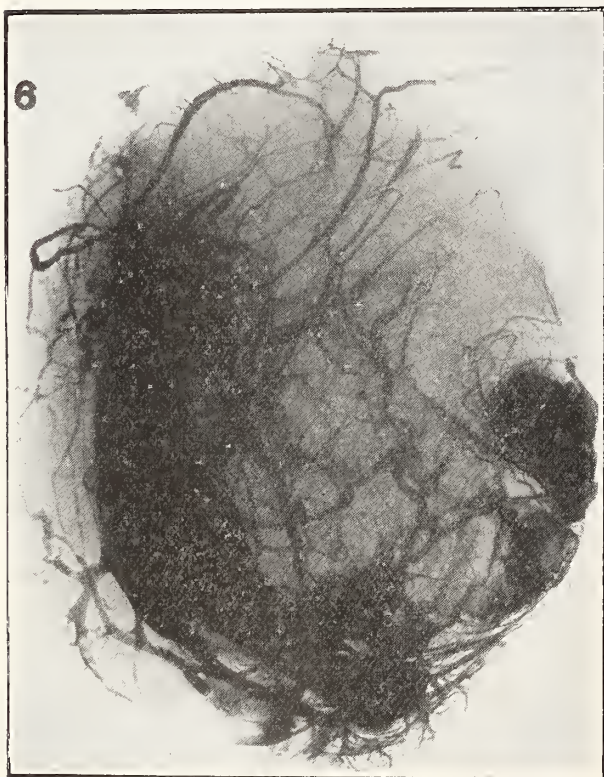
the cephalic portion of the sealion, has only two stalky, club-shaped minor calyces. The inferior major calyx, which in turn resembles the caudal end, has also two minor calyces with broad stems and truncated apices. Its terminal portion is fan-shaped and merges directly with the pelvis proper. The ureter, which is abnormally small, projects abruptly from the center of the pelvis, producing a sort of a valvular effect for the outflow of the pelvic contents. The blood vessels supplying the tumor have the following peculiarities about them: First, they do not follow a definite course or direction. Second, they are extremely long and tortuous. They are atypical in their arrangement. Third, they do not give the appearance of end arteries as seen in normal kidneys

The tumor mass is not so scantily supplied with blood vessels as is often understood. With the exception of a very small area, 1.5 cm. in length, situated at the lower pole of the kidney, there is no

while (1). Teratoma have been reported by Paget (2) and Haeckel (3). Albarran and Imbert tabulated 600 cases of kidney tumors occurring at all



Pyelogram.



Pyelogram and Circulation Injected

normal renal tissue left. In this particular spot the course of the blood vessels are normal, ending in end arteries.

Teratoma contain heterogeneous tissue elements, resembling tissues normally found elsewhere. These tissues are more or less typical of the normal tissues which they represent. These growths are explained in various ways. The most probable is: That as a result of some accident to the ovum in its early segmentation, or perhaps in consequence of faulty fissions in the young embryo certain parts grow in abnormal position. These misplaced tissues often remain dormant for a long

ages. Twenty-two of these were in children and 30 per cent were mixed tumors (4).

Pathological examination made by Dr. J. E. Davis, Pathologist, Detroit College of Medicine and Surgery.

Roentgenological studies by Dr. W. K. Lim of the Jefferson Clinic.

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HENOCH'S PURPURA

STUART WILSON, M. D.
DETROIT, MICH.

The clinical picture presented by this patient was unusual in my experience and I believe will be of interest to you.

He was admitted to my service February 16th with a provisional diagnosis of Intestinal Obstruction. I was called to see him at once because his condition seemed so serious.

The patient was a male, age 28 years. He lay in bed, moaning in pain. His expression was pinched and fear showed in his eyes. He was very restless and had a great fear of impending death. He complained of extreme abdominal pain, distention, nausea, vomiting and that his bowels had not moved for several days.

Previous History. Two weeks previous he helped to lift a heavy piano. That night he became nauseated and felt as if his intestines had swollen. His urine looked bloody. A few days later persistent vomiting had set in and his abdomen was

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PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES

JOHN SUNDWALL, Ph. D., M. D.

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PAST PUBLIC HEALTH ACTIVITIES

Prior to the World war, our chief public health activities were confined to the control of the environment. If typhoid fever "broke out" in a certain locality, the sanitarian was sent out with a view of making an inspection of the premises concerned and directing the people to clean up. If diphtheria became rampant, the schools were closed early and the schoolhouses received the usual innocuous fumigation. The general assumption was that germs of disease lurked in dark rooms or filthy alleys patiently awaiting the innocent passerby with the determined objective in view of "jumping onto him." Such was our belief of disease in general and of tuberculosis in particular. Further, it was commonly held that diseases traveled a long distance through the air. The term malaria, which means "bad air," illustrates this belief. Hospitals for infectious diseases were, therefore, located at some distance from the city.

We legislated against and made provisions for the control of the environment. Restrictions were made as to the location of slaughter houses, pigsties, corrals, etc. Health laws and regulations were in general concerned with street cleaning, garbage disposal and the abatement of nuisances. Water purification and sewage disposal received consideration. The public roller towel and the drinking cup fell within the ban of the health department.

Then we "set up" state and municipal boards of health and proceeded to hold them responsible for our health. If an epidemic broke out the invariable public reaction was: "What is wrong with the health department?"

On the whole, we had become more or less satiated with the apparent success of our health activities. We expended much money and each state, municipality and district in our country possessed a board of health that would "see to it" that health was equally disseminated to all our citizens. In fact, we openly boasted that America was a nation of super-health and strength. Did not our American youths return from the world's Olympics, wearing the laurels of victory? Are not the world championships in boxing, wrestling and in a host of manly sports held by Americans? What better specimens of active and virile manhood can be presented than the football eleven?

Assuredly such evidence bespoke a nation of unrivaled physical vigor.

THE NATIONAL DELUSION

Wars have their virtues in that they make the nations engaged therein conscious of their own weakness. Perhaps our greatest national delusion was dispelled when we began to muster in the man power for our armies. For the first time in the history of our country a far-reaching health census was taken, the draft examination. "One-third failed to pass the physical examinations." Under this caption was heralded the humiliating results of the nation's first attempt to raise an army. One-third of the very prime of American manhood failed to pass the ordinary tests of physical fitness. No attempt was made to select supermen.

Previous to this forceful and lamentable discovery of our general national physical retrogression, however, numerous warnings had appeared from time to time. Infant welfare workers had called our attention to the hazards of babyhood. More than 300,000 children under five years of age die annually in the United States. And the majority of these deaths are preventable. Such then is our reckless wastage of infants. Educators had warned us repeatedly of the deplorable physical condition of school children. Of the 22,000,000 or more of our public school children, 16,000,000, or 75%, have physical defects which are potentially or actually detrimental to health and efficiency. Life saving agencies had informed us that as the middle period of life is reached, a sound physique was a rare finding. But we took little heed. It required the war to make us realize the seriousness of our deplorable condition.

Thus a national delusion has been dispelled.

THE PROMOTION OF HEALTH

What then was wrong with all our past expensive and energetic health activities? We had dealt chiefly with things, environment. We had failed to deal intensively and extensively with the person or people. Ignorance of the fundamental laws of right living and its invariable accompaniment, neglect of the body, are responsible in the very largest measure for this present national problem. Hereafter the education and control of the individual will be the foundation of all effective health work.

Education of the people is the only means a democracy has for the correction of this evil. The promotion of health is fundamentally an educational matter. Every citizen must be potently impressed with the urgent need of building up and maintaining a strong, healthy, harmoniously developed and active body; and to accomplish this he must know the role that food, air, activity, rest, poisons, physical defects and mental instability play in impeding or promoting health.

No country can maintain a position in the van-

guard of civilization if its citizenry is made up of subnormals. The individual must be made to feel that positive health is fundamental to his own welfare and to the permanency, security and advancement of our nation.

Nor must this education be delegated to some more or less obscure, feebly supported health agency. It must be an integral part of our educational system. The promotion of positive health must be of greatest concern to all interested in the welfare of the state. We must no longer tolerate that ignorance and neglect which imperils the nation in times of great crises. We must have young men physically able to support the supreme obligations of citizenship when the very existence of our country is dependent upon its man power. Thus good health becomes a question of patriotism.

Further, society is going to concern itself more and more with the subnormals. The physically and mentally defective are millstones tied to the neck of society. They are economic burdens. It has been estimated that at least one-half of our American people who should be economically productive are not "holding up their full end of the burden" because of preventable subnormality, and are being supported wholly or in part by the other half which is industrially active.

Assuredly, the promotion of health is an educational problem. Like education, it must reach every individual.

HENOCH'S PURPURA

(Continued from Page 136)

very painful and distended. The vomiting relieved the pain some. The vomitus did not contain food and was bloody only once.

He passed considerable fresh blood from rectum the day before his admission to the hospital. During this week of pain and vomiting his bowels had not moved.

Examination. Abdomen was markedly distended and rigid. Tenderness on pressure was present over entire abdomen. There was no visible peristalsis. None of the viscera were palpable. No fluid in peritoneal cavity.

General physical examination was negative except for a petechial rash over elbows, ankles and knees.

There had been no bleeding from gums, mouth or nose. Patient recalled a slight pain in his knees the first day. He thought the rash appeared the day following the lifting of the piano. This rash had nearly disappeared when the acute abdominal symptoms appeared.

The clinical picture of intestinal obstruction did not account for the petechial rash. The abdominal condition alone certainly suggested the possibility of intestinal obstruction, kidney colic, appendicitis, gall bladder, pancreatitis, etc. In fact the literature has reported these cases having been operated upon only to find hemorrhagic tumors in the mesentery and bowel wall.

It seemed to us that the only disease which would account for the purpuric rash and abdominal crises as a complex was Henoch's Purpura.

This was our diagnosis.

The patient was relieved of great anxiety when told he would not be operated upon. The following day his bowels moved three times.

His urine contained albumin, granular casts and red blood cells.

The blood showed 4,380,000 red cells with

poikilocytosis and anacytosis, 92 per cent hemoglobin, 16,400 leucocytes, 83 per cent polys and 16 per cent monos.

No complications of the heart were demonstrated. No edema of skin or mucous membrane ensued. His past history was uninteresting.

There was no attendant upper air tract infection and no foci of infection found. The patient made an uneventful recovery from this attack as far as could be determined, as he passed from our immediate observation on the third day.

DISCUSSION

There are about 100 reported cases of Henoch's Purpura in the literature from 1808 to date.

Willan first described the symptom complex in 1808.

In 1874 Henoch, the Pediatricist, described four cases with the symptom complex of abdominal crises associated with purpura.

V. Dusch & Hoche in 1890 reviewed the published cases under the name of Henoch's Purpura. They tabulated 39 cases, 17 in children and 22 in adults.

In 1898 Osler reviewed the literature and found a total of 61 cases reported, including his own. He differed with Henoch's complex and writes from the angle of various skin manifestations grouped under the name Erythema Multiforme with Visceral Manifestations. The skin conditions he describes vary from hyperaemia, edema, urticaria to purpura. The visceral involvement may be only very slight or much in evidence. The visceral involvements he described ranged from the eye to the abdomen.

Since Osler's contribution, 24 cases have been reported, practically all in children.

At the present time the literature is dropping the complex as an entity and many authors do not even mention it.

However, the complex as described by Henoch is a very real disease with a death rate of about 20 per cent in the unoperated cases and practically 100 per cent in those operated.

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The Journal

OF THE

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MARCH, 1922

Editorials

ANNUAL MEETING

Our 1922 annual meeting will be held in Flint on June 7, 8 and 9. The Flint profession are perfecting ideal arrangements for this year's session. The Durant Hotel will be headquarters and all but two sections will hold section meetings in splendidly adapted rooms in this hotel. Two sections will meet in a church not over a half a block distant from the Durant Hotel. The exhibit will also be placed in the hotel.

The scientific committee met in Flint on February 1 and arranged the scientific program. We believe that covers a range of subjects that will be of distinct educational value and interest. We can announce that we have received acceptances from Drs. George Crile, Earnest LaPlace of Philadelphia, Haven Emerson of New York city, and President Burton of Ann Arbor to address us at the general sessions. The completed program will be printed in the May issue.

Make your hotel reservations early.

PUBLIC HEALTH EDUCATION

In compliance with the action taken by the Council at its mid-winter session, the committee of our State Medical Society and a similar committee representing the medical department of the University met in Ann Arbor on January 30, and formed a Joint Committee on Public Health Education. President Burton of the University was elected chairman of the Joint Committee and the Secretary of the State Medical Society was made the committee's secretary. The personal of the committee is, W. J. Kay, A. P. Biddle, Angus McLean, George E. Frothingham, W. J. Dubois and F. C. Warnshuis representing the State Society. President Burton, Dean Hugh Cabot, Dr. G. Carl Hueber, Dr. John Sondwall and Prof. Henderson representing the University.

The following statement was adopted as a committee policy:

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

In compliance with that policy it is the purpose of the committee to invite the Dean of the Detroit College of Medicine and Surgery, the president of the State Dental Society and the State Commissioner of Health to join in the committee's deliberations and activity.

Requests have been sent to all component county societies to appoint a local committee on public health education for the purpose of co-operating with the State Committee and furthering its efforts in this statewide movement.

A similar request has been sent to county societies to submit nominations for speakers who will go out under the auspices of the committee and fulfill lecture engagements that are to be made by the Extension Lecture Institute of the University. These public lectures in different communities will be sponsored and conducted by literary clubs, granges, men's clubs, church guilds and societies, luncheon clubs, lodges, etc. The subjects covered will be selected by the state committee and outlines and lantern slides furnished. For the benefit of the sceptical we can state that there will be no

propaganda for the university or the medical department.

The sole purpose is educational and to acquaint the public what scientific medicine is and does for the conservation of public health in the prevention and treatment of disease. Further, to reveal to the public what scientific medical research is accomplishing in unfolding the mysteries of human ills and advancing the health of the people of Michigan. Definite and understandable facts will be imparted to the people. The curtain of mystery behind which we have in a measure secreted our work is to be drawn back and the people are to be taken in our confidence.

The Joint Committee will meet monthly to supervise the work. The next meeting will be held in Ann Arbor on February 27, at which time further details will be worked out and further information given to our members. At the present we can but advance the above general statements.

If careful thought is given to the outlined plan it will be perceived that this movement presents a most constructive undertaking. By some it has been termed one of the biggest things that has occurred in the past 25 years of medical activity. It is potent of solving the problem of our obligation to the public and the creating of a public relationship that will be productive of a most wonderful co-operative effort for the conservation of human health.

The work cannot be consummated by the members of the committee alone. They need and merit the support of every member. It is to your personal interest to subscribe that support. We urge that you become intensely and actively interested in your own society and community.

DUES

This is the final reminder. If you have neglected to pay your dues, this will be the last Journal that you will receive until you become re-instated. The Society's by-laws and the postal regulations make it imperative to remove all names from our mailing list whose dues are not received by the state office before April First.

We urge that you make prompt remittance to your county secretary. County secretaries are requested to cause us to receive remittance not later than March 25.

THE CHANGING DOCTOR

Recent agitation, among members of the American medical profession, as to the propriety of wel-

coming Dr. Lorenz, the famed Vienna orthopedic surgeon, or even permitting him to practice his skill in this country—a matter in itself too petty to deserve discussion—has led one prominent doctor to a rarely frank criticism of his fellows—an outspoken condemnation of the "code of ethics" which may find sympathetic lodgment in the mind of many a layman.

This critic—Health Commissioner Copeland of New York—freely expressed himself to a group of advertising men and gave it as his opinion that if physicians and surgeons generally made proper use of publicity they could wipe disease off the face of the earth.

As soon as the public learned through the newspapers of Dr. Lorenz's arrival, thousands flocked to him to be relieved of the distressing effects of paralysis, said Dr. Copeland.

"Dr. Lorenz did not bring with him any greater ability than at least twenty surgeons in this city possess," he continued. "It was because our doctor or our methods do not bring home to the people what can be done that we went to the distinguished foreigner to hear what he could tell us.

"There is something wrong with the system that makes it impossible for the sick or the crippled person not to know that he can be healed. And the fault is with the medical profession, which has been unwilling to advertise what it can do.

"The medical profession, through the ages, has chosen to make itself a secret thing. The doctor has been looked upon as a sort of a miracle man. He has hidden his wisdom behind a veil of silence. An air of mystery has surrounded the profession and we have developed a code of ethics. This, I believe, is the most antiquated, moss-covered and germ-laden institution in the world!"

Doubtless many will agree with Dr. Copeland. Inwardly some of his confreres have felt a good deal the same way and have not hesitated to express themselves—in whispers. Sooner than any one anticipates, however, there may come over the medical profession a change of attitude in this respect.

We are prompted to this statement by a current review of facts concerning certain changes which quietly have taken place in the world of doctors during the last decade, and certain others that are needed. And while these have no direct relation to the code of ethics, they do evidence a forward development in the practice of medicine and the field of medical education, and indicate a degree of progressivism which justifies hope for further progress.

In the first place, while all other institutions of learning have increased in numbers during the last fifteen years, during the same period the number of medical schools in this country and Canada decreased from 160 to 85, a falling off of nearly 50 per cent. However astonishing this situation, it need give no cause for alarm.

"Most of the schools that have gone deserved to die," says the latest report of the president of the Carnegie foundation for the advancement of teaching. "Some were frankly commercial, some were hopelessly inadequate, some were honest but misguided. The mortality amongst these schools has been in the main to the glory of God and to the good of the state. It was a cleaning of the Augean stables that had to be done before sound progress could be assured."

In other words, after having sidestepped for many years the shouldering of a manifest duty, the physicians diagnosed a diseased condition in their own house, and, with the aid of the surgeons,

performed a major operation which involved a cutting out of numerous quack factories and amputation of noxious diploma mills. This, in itself, was admirable. But any patient subjected to such an ordeal obviously needs tonicing. Hence the present widespread feeling among those interested in the welfare of the people at large that radical reforms in the medical curriculum should be carried out.

"It represents today," says the report above quoted, "the conception of the teaching of a half century ago, modified by certain laboratory practices superimposed upon it. What is needed is to abandon this conception entirely and to plan a medical curriculum afresh in the light of present-day knowledge of medical science and of medical education.

"Teaching institutions are incast; to try an educational experiment it is almost necessary to found a new institution. Whatever agency may undertake this task must have the courage to do two things—first, to reduce the load laid upon the student to a point where he may have time to think and to digest in some measure the studies with which he is concerned; and, secondly, to scrap the present rigid curriculum and reconstruct a new course of studies in which anatomy and physiology and chemistry and pathology are not separate and distinct things to be taught at different times, but are parts of one thing to be learned and applied as the exigencies and opportunities of the lecture room, the laboratory and the hospital may provide."

The able critic who thus discusses the case does not hesitate to say that the weakest parts of the present system of medical teaching are—not one or two subordinate subjects, but the very vitals—*anatomy and pathology*. He calls special attention to the fact that while these are elaborately taught, little or no opportunity is offered to observe the application of such knowledge to the practice of medicine and surgery.

"The practical remedy for this situation," he says, "is to reduce the amount of theoretical instruction and change the character of the teaching so as to make clear the fundamental facts, at the same time starting clinical instruction with the very beginning of the course. The student should learn his anatomy and pathology through his clinical training—not reverse the process."

We call attention to this situation for a definite but little known reason. Among the thousands of medical men who answered the call to the colors in 1917 the percentage of those lacking in what might be termed applicative knowledge of medicine was amazingly large. There was no lack of willingness to serve and work, but there was sufficient absence of all-round ability to deal with the common run of cases to astonish the abler men in the forces.

This situation set the leaders thinking. It evidenced inefficiency in the training of doctors—a condition easily enough conquered by the exceptional fifth of the profession, but acting as a severe handicap on the average four-fifths. And in this day of marked scientific advance in medicine and surgery, nothing should be allowed to interfere with the public's full acquisition of such benefits.

That the first aim of medical education should be to insure such service is obvious, and the leaders in this profession are a unit in so thinking and are united in an effort to leave no stone unturned

in the endeavor. In this connection the following suggestion from the authority previously quoted is worthy of serious consideration:

Within the next one or two decades there must be worked out a form of association under which the medical school, the hospital, the research laboratory, and the clinic shall all be parts of one thing. Under such an arrangement the cost of medical education, no less than the cost of the hospital, the clinic, and the research laboratory, will be paid for by those who obtain medical diagnosis or medical treatment through such an associated group.

Society will not permanently support a system of medical teaching and practice that fails to bring its service within the reach of the great body of the people. Medicine cannot permanently survive by ministering mainly to the very rich and to the very poor and the money to support such a system must be paid for in large measure by the service that it offers. Sooner or later medical school graduate and undergraduate, hospital, research laboratory and the diagnostic clinic, must be part of one organization, and the support of the whole system must come in the main from the payments of those who are taught, diagnosed, treated, or nursed by it. This is all possible without trenching upon the field of the practicing physician and surgeon. Indeed, it will depend on his co-operation and will in turn furnish him the support and co-operation which the isolated practitioner of medicine sorely needs today.

This does not mean that the free service of the hospital and of the clinic will be denied the poor and the unfortunate. The frailties of our common humanity are such that a certain proportion of human beings will be weak and ill and unfortunate, and to these the hand of medical service must be extended at the cost of the strong, reliant, oftentimes more fortunate, majority. But the support of medical education no less than the support of medical service must in the long run rest upon the shoulders of the great body of the people who are served by it, and the sooner we recognize this fact, the better for the future of medical teaching and of medical practice. This means organization, not only of medical institutions—the school, the hospital, the research laboratory, the clinic—but it means organization of the medical profession itself, a subject to which one is inevitably led if he follows to its conclusion the trend of medical education and of medical practice in the light of modern science and of the present-day conditions in our social order.

The requirements of civilization demand that the fruits of scientific advance be brought within easy reach of the man or woman of limited means who can afford to pay only a modest fee. For many years these advantages have been shared chiefly by two classes—those who can afford to pay whatever is asked and those who cannot pay anything. Between these two extremes lies the large mass of the people, and if for no reason other than numbers, these deserve first consideration. In most instances, however, they receive little.

Without regard for any class, but simply as a means of defending the nation against disease and insuring its physical progress, the individual patient must be assured of the best judgment of medical science at a price within his power to pay. In order that this may come to pass, the average medical man must be practically as well as theoretically able, and his individual fitness must be

backed by convenient laboratory and hospital facilities.

Real progress toward this end has been made within the last decade. Standards of medical education have been lifted and laboratories and hospitals have multiplied at a gratifying rate. The doctor himself is changing—getting broader minded and less mystifying—and this is the best sign of all.—Philadelphia North American

Editorial Comments

Be sure and read the article in the new department of the Journal. It will be found following the Original Articles.

Dorland will have to re-edit his dictionary. A new disease or condition has appeared. The number afflicted are increasing. The cognomen used to designate the condition is the "Bee-Palmer Spine."

We congratulate most heartily our fellow member, Dr. Preston M. Hickey of Detroit, upon his election to the chair of Roentgenology in the Medical Department of the University of Michigan. It is a well merited recognition of his achievements and professional ability. His selection materially adds to the strength and prestige of the faculty of the Medical Department. We tender our every good wish.

Under the auspices of the American Medical Association, the Annual Congress on Medical Education, Licensure, Public Health and Hospitals will be held in Chicago at the Congress Hotel on March 6 to 10. All are welcome to these sessions. The Thursday sessions will be devoted to discussion of "The Organization of the Public for Co-operation with the Medical Profession." We trust many Michigan members will attend.

Don't worry yourself about what that "Cult" bird next to you is saying or doing. Simply tend to your own job and while doing so do not miss the opportunity of telling the people just what scientific medicine is accomplishing. Never mind knocking him and hollering "fake." He will hang himself just as soon as the people learn the whole truth. The "hanging" event will occur all the sooner if you put in extra hours spreading the educational data.

The Journal needs assistance in the securing of larger funds to defray publication expense. The Council directed that the advertising pages be opened for the publication of professional announcements. Please refer to the advertising pages of this issue and note their nature. You will also find an order blank, should you desire to utilize similar space and thus aid in securing funds that will enable us to continue sending you a larger and better Journal. Enclose your copy with the order.

We look forward with confidence that at the St. Louis session of the A. M. A., during the week of May 22, there will be formulated a plan of medical and organization activity that will solve the problems that are pressing for solution. We are certain that a tempered judgment will be manifested, but which at the same time will be potently effective.

In end results. Changes must and will be made, but they will not be characterized by Bolshevikistic radicalism. Revolution is ever associated with chaos and disorganization. We desire none of that.

The Indiana State Journal passes the remark: "At last Michigan is Waking Up." Humph, strange how, when one is stretching and yawning and trying to become accustomed to the light of a new day, even though it is 11 a. m., that he labors under the impression that the rest of the world is just rising with him. Michigan has been awake many hours, Indiana. It has passed the early stage of criticism and fault-finding and is attempting to offer something that is constructive, Shake-a-leg, Hoosier brother; catch up with the crowd and let us have the benefit of your constructive advice. Let us have your aid in remodeling and revamping. What have you to offer?

To reveal what the public is thinking in regard to our profession is the reason for printing in this issue the editorial taken from the Philadelphia North American. We admit that the editor cannot be expected to quite grasp our view-point because he is not on the inside and so cannot look out. At the same time possibly his view-point is rather incongruous to us because we have not the advantage of being able to see ourselves as do others. On the whole we believe that we are approaching a common ground—that is what we are striving for. However, we hope it will be attained without the aid of "gland transplants," prostatectomies, or letters that advertise us as commending certain types and makes of corsets.

We extract the following from the Indiana Journal. It is pertinent to our men also:

Some doctors take particular pleasure in being rashly independent. They think it is smart to take no suggestions or advice from anyone, and when they are asked to lend a hand in promoting something of direct interest to the medical profession as a whole they find delight in offering opposition openly, or silently through failure to co-operate. Is it any wonder that we do not accomplish more when it is so difficult to get the public or legislators to thing along right lines in the consideration of medico-public questions? How often do we hear the statement, "You doctors never hang together?" It is true! Let us turn over a new leaf and show the public that we are a unit for the things that are right and for the best interests of all concerned. If we do this we will have more and better legislation for the maintenance of right medical standards, and we will head off the idiotic socialistic schemes which eventually will end in bureaucratic medicine.

Never has there been need for greater activity on the part of every member. Your duty consists of more than paying your dues. Your field of activity is in your own vicinity and under the direction of the committee on public education of your own county society. Tell the people of your locality, your patients, just what scientific medicine is doing for them. Sell it to them and inform them what they are buying. Do not reason that you are immune to the enactments of uninformed legislators. Interview them, tell them, secure their pledges to favor legislation that will provide for constructive health laws and practitioners who will not be menaces to the public.

This entails time and work. No one else is going to do it for you. It devolves upon you to enlist and subscribe at least one hour a day to put over this educational movement. Failure to do so will be met by having a state of affairs to contend with that will materially affect your daily work and income. You must become aggressively active and follow the instructions of your local committee.

Dr. A. J. Barker Savage, Superintendent of Broad Street Hospital, New York, has just completed a study in longevity. The doctor has taken 41 Greeks and Romans (most of them selected by Plutarch) as leaders of the ancient world, and 41 Americans, selected by B. C. Forbes, as the leaders in the business and finance of this country today. He finds that the average age at death of the ancients was 55.7 years, while the moderns (all of them living at the present time) already average 63.8 years. According to life insurance researches, one may reasonably expect 10.5 more years of life. In other words, the doctor figures that the modern will die at an average age of 74.3.

Dr. Savage states that the intensive concentration of American life has not brought about early death of those who have had to struggle for success.

In the sixteenth century the best estimate that is to be had places the average length of life at 19 years; at the close of the eighteenth century, it was a little more than 30 years; and today the average length of human life is probably 50 years. But the doctor feels that we have not yet reached the maximum in longevity. It seems certain that on top of our present span of life 15 more years might be added by the proper attention to health and the signs of illness.

Attention to health, assisted by medical and surgical advice has brought about a lowering of the death rate in the past and the increasing of the span of life. The result is that not only is death coming later, but the period of most successful activity is coming later and is longer.

Dr. Savage has come to the belief that Dr. Woods Hutchinson came to about a year ago—that the pace that kills is the crawl; that the faster you live, the slower you die.

Deaths

Doctor David Inglis was born in Detroit, Dec. 27, 1850 and died in Tryone, N. C., Jan. 31, 1922. He was the son of Dr. Richard Inglis, one of the leading practitioners of Detroit and President of the Michigan State Medical Society in 1869-1870.

Dr. David Inglis received his education in the Detroit public schools, University of Michigan, Detroit Medical College and Bellevue Hospital Medical College, receiving the degree of M. D. from Detroit in 1871 and from Bellevue in 1872.

He began the practice of medicine almost immediately in the city of his birth and practiced continually until several years ago, when he retired. Since then he has spent his summers in Ann Arbor and his winters in the south.

The doctor was a specialist in Neurology and Psychiatry and was well and favorably known throughout the state and country. For a great many years he was professor of Neurology and Psychiatry in the Detroit College of Medicine and Attending Neurologist to St. Mary's hospital.

He was active in the county and state medical societies and was president of the Michigan State

Medical Society in 1905-1906. At the time of his death he was Consulting Neurologist to Harper hospital and to St. Mary's hospital.

In 1877 he married Miss Jenny Baxter at Jonesville, Michigan. Dr. Inglis leaves besides his widow, one son, Baxter Inglis of Dayton, Ohio, and two daughters, Mrs. Dorothy Milligan of Bay City and Miss Lois Inglis of Detroit.

Doctor Elam F. Srygley was born in 1890 and died January 11, 1922. He received the degree of Doctor of Medicine from Vanderbilt University in 1913. He practiced for a time in Odessa, Florida. He was formerly on the staff of the New Jersey State Hospital. At the time of his death he was Assistant Superintendent of the Newberry State Hospital. Doctor Srygley was a veteran of the World war, having served in France.

Dr. E. A. Bagley, who practiced in Alma for 33 years and retired in 1919, died at the home of his daughter in the west January 17. The remains were brought to Alma for burial, six of the doctor's former associates acting as pallbearers.

On September 12, 1919, Dr. and Mrs. E. T. Lamb gave a farewell to Dr. Bagley on his retiring from practice. Twenty-two of the Gratiot County profession were present. With appropriate remarks on behalf of the Gratiot County Medical Society, Dr. W. E. Barstow presented Dr. Bagley with a gold watch as a token of their esteem.

Dr. Bagley was a very kind and lovable physician, strictly honorable and ethical. If the profession were all like him there would be very few malpractice suits.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Dr. W. H. Wiley of Grand Rapids has located in Lansing.

The engagement of Dr. T. D. G. Gordon of Grand Rapids is announced.

Dr. Willard Mayer of Detroit was married February 8, 1922, to Miss Adele Siegel of Detroit.

Dr. J. O. Reaume of Windsor is making an extensive trip to California, Mexico and Panama.

Dr. and Mrs. A. H. Krohn of Detroit announce the birth of a son, Bernard, January 14, 1922.

The Detroit Dermatological Society held its first annual clinic at Harper Hospital, February 21, 1922.

Dr. and Mrs. W. T. Dodge of Big Rapids departed February 9th for several weeks' visit to the Florida resorts.

Dr. and Mrs. Stanley G. Miner of Detroit recently announced the engagement of their

daughter, Marion Louise, to Mr. John G. Leahy of Detroit.

Dr. and Mrs. P. A. Dewar left Windsor the middle of February for Florida, where they will remain 'till Easter.

Dr. and Mrs. F. J. W. Maguire left Detroit the middle of February for a month's stay at Palm Beach, Fla.

Dr. and Mrs. D. J. Levy of Detroit announce the birth of a daughter, Elizabeth Helen, January 16, 1922.

Mr. E. G. Liebold resigned somewhat recently as superintendent of the Henry Hospital, Detroit. Mr. Graham will take his place.

The East Side Physicians Association of Detroit met January 19, 1922. Dr. Harry Saltzstein read a paper on "Fractures."

Dr. and Mrs. Arthur W. Newitt of Birghingham announce the birth of a daughter, Virginia Helen, Jan. 24, 1922.

The Wayne County Medical Society gave an informal Dancing party, February 14, in the Pier ballroom.

Dr. and Mrs. A. D. Holmes and family of Detroit spent the last two weeks in February at Pinhurst, N. C.

The Tenth Annual Dance of the Detroit Samaritan Hospital Auxillary was held at the Hotel Statler, Feb. 6.

Dr. Paul Klebba has been appointed health officer of the village of Hamtramck. He succeeds Dr. T. T. Dysarz.

The annual meeting of the American Laryngological, Rhinological and Otological Society will be held in Washington, D. C., May 4-6, 1922.

Dr. H. K. Shawan of Detroit read a paper on "The Surgical Treatment of Goitre," January 5, 1922, before the Highland Park Physicians Club.

Miss Hermine Josephine Kiefer, daughter of Dr. and Mrs. Guy L. Kiefer of Detroit, was married Feb. 18, to Mr. M. Duval Lawrie, also of Detroit.

Roosevelt Hospital, New York, is to have an eight-story addition to its building at 59th street and 9th avenue, at an estimated cost of \$1,000,000.

A new soldiers' hospital to cost \$1,000,000 is being constructed in Milwaukee, Wis. It will include eight buildings and will accommodate 700 patients.

Dr. Mary T. Stevens of Detroit tendered her resignation Feb. 3, as a member of the Board of Mayor Couzens.

Commissioners of the House of Correction to

Dr. W. H. MacCraken, dean of the Detroit College of Medicine and Surgery, spoke over the Detroit News Radiophone, Feb. 8 on "The Problems of the Doctor of Today."

The Detroit Academy of Medicine met at the residence of Dr. E. W. Haass, Feb. 14. Dr. L. H. Newburgh of Ann Arbor read a paper on "Experimental Arteriosclerosis."

At the annual meeting of the Detroit Tuberculosis Sanatorium, January 17, 1922, Dr. B. R. Shurly was elected vice president and Dr. H. M. Rich, secretary.

Dr. Eugene Smith of Detroit read a paper on "Accidents in Cataract Operations," February 1, 1922, before the Detroit Ophthalmological and Otological Club.

At the annual staff meeting of Butterworth Hospital, Dr. R. J. Hutchinson was elected Chief of Staff for the ensuing year, succeeding Dr. Alden H. Williams.

The engagement of Hugh W. Hitchcock, son of Dr. and Mrs. C. W. Hitchcock of Detroit, to Miss Charlotte Wiley also of Detroit was announced recently.

Dr. Preston M. Hickey of Detroit was appointed, January 27, 1922, Professor of Roentgenology at the University of Michigan, succeeding the late Dr. James Van Zwaluwenburg.

Dr. C. Hollister Judd and Mrs. Emma McLaughlin were married January 26, 1922. Dr. and Mrs. Judd will be at home after May 1, 1922, at 857 Iroquois Avenue, Detroit.

A special class for children affected with heart disease who require limited exercises, was started at the Russell school, Detroit, Jan. 31. Dr. Harry Schmidt will supervise the work.

Dr. J. S. Pritchard of Battle Creek read a paper on "Non-Tubercular Disease of the Lungs," with lantern demonstrations, before the Detroit Academy of Medicine January 24, 1922.

The Detroit Society of Neurology and Psychiatry held a symposium on "The Relation Between Endocrine Disturbance and Neuro-Psychiatry," at the Medical Building, Detroit, February 2, 1922.

Dr. Paul A. Lewis, director of the laboratory of the Henry Phipps Institute of Philadelphia, read a paper on "Tuberculosis and Heredity" before the Wayne County Medical Society, Feb. 27.

The Detroit Medical Club met January 19, 1922, at the Medical Building, Detroit. Following dinner Dr. W. M. Donald read a paper on "Expectorants," and Dr. G. E. McKean on "Treatment of Bronchitis."

Services in memory of Dr. James Van Zwaluwenburg were held in the Surgical Amphitheatre at Ann Arbor, Feb. 8. Brief addresses were made by Drs. Hugh Cabot, A. W. Crane, P. M. Hickey, H. M. Rich and Reuben Peterson.

The Western Michigan Interurban club met in Battle Creek as guests of the Sanitarium Staff on February 9th. Out of state guests were: Dr. George Ensteman of the Mayo Clinic. The next meeting will be held in Cleveland, Ohio.

Dr. T. B. Cooley has recently been re-appointed Medical Director of the Babies' Milk Fund, Detroit. The total attendance for 1921 at the Babies' Milk Fund Clinics was 3,204. The average daily attendance was 20 babies (a 100 per cent increase over 1920).

Under the terms of the will of the late Dr. Henry A. Cleland, a bequest of \$3,000 was made to the Wayne County Medical Society. At a recent meeting of the board of trustees, this sum was set aside and is to be known as the Henry A. Cleland Endowment Fund.

The trustees of Western Reserve University have accepted Mr. Mather's offer to pay for the construction of new medical school buildings. The present estimate places the cost of these buildings at \$2,500,000. Mr. Mather had previously given the university \$1,500,000.

The West Side Physicians Association of Detroit met January 12, 1922. Dr. Douglas Donald presented a paper on "Basal Metabolism"; Dr. Stuart Wilson on "The Value of Blood Chemistry in Relation to Kidney Disease"; and Dr. J. E. Davis on "Classification and Pathology of Kidney Diseases."

In a recent report of the Detroit Department of Health it is stated that of the 175,000 children of school age in Detroit there are 75 per cent suffering from decayed teeth, 85 per cent are in the need of prophylactic care and instruction, and 20 per cent have indications of oral pus-producing conditions.

Dr. B. D. Harrison of Detroit delivered an address on "Cults and Cult Practice" before the St. Clair County Medical Society, January 19, 1922. A dinner at the Port Huron Board of Commerce preceded the address. A large percentage of the membership of the County Society was present. The talk was fully and freely discussed.

The Academy of Surgery of Detroit met at Providence hospital Jan. 13. Dr. Frank Walker presented two cases of brain tumor. Dr. H. W. Yates read a paper on "Therapeutics of Aborption" and Dr. George Potter, on "Diverticula of the Intestinal Tract." Following the program, the society were guests of Providence hospital at lunch.

The Detroit Society of Internal Medicine held its monthly meeting January 23, 1922, at the Detroit University Club. Dr. W. J. Wilson presented a case of "Auricular Flutter"; Dr. C. E. Vreeland presented the literature on "Achyilia Gastrica"; and Dr. C. G. Jennings read the paper of the evening on "Paralyses of Cerebral Origin."

From April 1 to December 31, 1921, 1,898 prisoners were examined in the Mental Clinic at the Recorder's Court, Detroit. Dr. A. L. Jacoby, psychiatrist, declares that these mental examinations give the judge a clearer understanding of the case

he is about to dispose of and in a large percentage of cases, the prisoner needs a doctor rather than a jailer.

Dr. Joseph E. Bennett has been appointed superintendent of the Wayne County Institution at Eloise, succeeding the late Dr. John J. Marker. These institutions include the Infirmary with 1,020 beds, the Tuberculosis Sanatorium with 75 beds, and the Hospital for the Insane with 940 beds. Dr. Bennett's father was superintendent before Dr. Marker.

The Board of Regents voted January 27, 1922, to merge the Homeopathic School and Hospital with the regular medical school and University Hospital. This merger is to take effect June 30, 1922. It has been provided that two chairs in Homeopathy (materia medica and therapeutics) be established. Dr. Hugh Cabot will be Dean of the combined medical schools.

Under the auspices of the Detroit Oto-Laryngological Society, Dr. Louis Fischer of Philadelphia gave a ten-day course on Neuro-Otology, beginning January 19, 1922. About 50 physicians enrolled. A dinner at the Medical Building was given the doctor on the evening of January 18, 1922, which was followed by a lecture by Dr. Fischer, in which he outlined his course.

Dr. Wilfred T. Grenfell, explorer, visited Detroit last month. He spoke Feb. 9 to the Caravan club and to the High School Boys' club; Feb. 10 to the Wanamaker club; Feb. 12 in the First Presbyterian church and in the North Woodward Congregational church; Feb. 13 to the Council of Churches, to the Exchange club and to the Wayne County Medical Society, and Feb. 14 to a public gathering in Arcadia Hall.

The First Councilar District meeting (Macomb, Oakland and Wayne) was held in Detroit Feb. 13. Clinics were conducted in the following hospitals during the day. Children's, Grace, Harper, Herman Kiefer, Providence, Receiving, Samaritan, St. Mary's, Shurly and Woman's. At 6 p. m. a dinner was served at the Medical building. After the dinner, Dr. J. B. Kennedy and Dr. G. E. Frothingham gave short addresses. At 8:30 p. m. Dr. Wilfred T. Grenfell spoke on "Medical Work in Labrador."

In the year just closed, the Laboratory of the Detroit Department of Health examined 221,524 specimens. This includes examinations for diphtheria (86,368), tuberculosis (5,099), gonorrhoea (50,595), syphilis (24,781), pneumonia and typhoid fever (325), water samples (3,507), milk samples (22,757), and chemical examinations for foods, liquor, drugs, etc. (18,438). The annual budget for the Laboratory is about \$44,000. If the above work were paid for at commercial rates, it would amount to over \$400,000.

At a recent meeting of the trustees of Grace hospital, Detroit, it was announced that Mrs. Henry P. Joy had purchased the house and property of the Rev. Dr. Locke on Elba Island and had converted it into a rest home for the nurses of Grace hospital. Mrs. Joy has spent \$40,000 in refitting the house which will accommodate about 40 visitors at one time. The orchards

and gardens adjoining the "Helen N. Joy Rest Home" will be cared for by a tenant the hospital will install. This gift will assure each of the Grace hospital nursing staff several pleasant week ends as well as a chance to spend part or all of her vacation on the island.

The Wayne County Medical Society has initiated an annual series of lectures, following the plan of the Harvey and other similar lectures in various medical centers. The name Beaumont Lectures has been chosen because Dr. Beaumont made his epoch making observations on the physiology of digestion when stationed at Fort Mackinac, Mich. The first lecture was given Monday evening, January 30, in the society headquarters, by Dr. W. G. MacCallum, Professor of Pathology in Johns Hopkins University, before the largest audience ever assembled in the auditorium. Two lectures were also given on Tuesday. The subject considered was Inflammation and was handled in a masterly and interesting manner.

A popular lecture on "Nutrition and Vitamines" was given in the Auditorium of the Medical Building, Detroit, January 20, 1922, by Dr. A. D. Emmett, under the auspices of the Wayne County Medical Society. This is the first of a series of lectures that have been arranged in the campaign of publicity and popular education. The object of the Society is to furnish the laity with instruction upon the plain, known, biologic facts on which all rational treatment of disease and care of the sick must proceed. A representative audience filled the Auditorium. The lecture elicited rapt attention and intelligent interest, demonstrated by the character of the questions that came from the audience at the close of the lecture.

County Society News

GENESEE COUNTY

The Orthopedic Clinic held at Hurley hospital, Flint, on Jan. 25 and 26, far surpassed the expectations of its promoters. The clinic was conducted under the auspices of the Rotary club working in co-operation with the Genesee County Medical Society. The Rotarians provided autos to transport the cripples to the clinic. Hurley hospital furnished lunch to parents and children and provided a corps of nurses to assist in taking care of the children.

Patients came from Flint and from all parts of Genesee county. The ages ranged from a three-day-old baby to adults. Almost every kind of orthopedic condition was to be seen among the 150 cripples presenting themselves. Thus the clinic proved a real education to the doctors attending, as well as an awakening to the community.

Dr. Frederick O. Kidner of the Detroit College of Medicine and Dr. Leroy C. Abbott of the University hospital, Ann Arbor, conducted the clinic. Both men are eminent orthopedists, as well as experienced teachers. They rapidly examined each patient, dictated findings and recommended the appropriate treatment. A fund has been raised by the Flint Rotary club to provide for this treatment. It is gratifying to know that the great majority of the cases examined may be much improved by treatment.

That the clinic was appreciated may be seen

by the favorable newspaper comment that it elicited, for example, the following excerpt from an editorial in the Flint Evening Tribune:

Is it worth while? No one could ask such a question after visiting the clinic rooms where these children are waiting to be examined. The Rotarians think it is worth while. The medical association thinks it is worth while. And so would anyone who could see the children who came yesterday and today to get their chance to start at "scratch" with others of their own age.

There is not a County Society in the state that would not profit by emulating Genesee County. Crippled children are generally grossly neglected and it is part of our public duty to see that they get a square deal. We feel sure that the Genesee County Medical Society stands higher in the community than before this clinic was held. The Rotarians deserves the greatest credit for suggesting the clinic and for providing funds to make it possible.

The Genesee County Medical Society met on Wednesday, Feb. 1, President Miner presiding. W. Holler, secretary of the Flint Chamber of Commerce was introduced and pledged the co-operation of the Chamber in making the Flint meeting in June a success. Dr. W. J. Kay of Lapeer, president of the State Society, gave a most inspiring talk. After briefly sketching the evolution of the practice of medicine, he told us what the state organization was attempting to do. He urged a better mutual understanding between teachers, practitioners, preventive medicine specialists and other groups making up the present day medical profession. Secretary-Editor F. C. Warnshuis, in a forceful address, referred to the feeling of distrust that seemed to pervade the post-bellum atmosphere, and stated that we had been too much obsessed with the purely scientific problems of medicine to the neglect of the study of our relations to the public. He referred to the Public Health program of the State Society and outlined what we expected to do by means of the Extension Bureau. After his address, it was resolved that the Genesee County Medical Society commend the work of the State Society and assure the officers of our hearty co-operation.

W. H. MARSHALL,
Secretary.

MARQUETTE-ALGER COUNTY

The annual meeting of the Marquette-Alger County Society was held at Marquette, Jan. 7, 1922. The evening was spent in a general discussion of State Medicine. The following officers were elected: C. N. Bottum, Marquette, president; David Littlegoher, Ishpeming, vice president; H. J. Hornbogen, Marquette, secretary-treasurer.

H. J. HORNBOKEN,
Secretary.

ACADEMY OF SURGERY OF DETROIT

The fifth regular meeting of the Academy of Surgery of Detroit was held at Providence Hospital on January 13, 1922.

Meeting called to order by president. Roll call. Those present, Drs. Allen J. Andries, R. Andries, Bell, Blain, Boulter, Ballin, Brooks, Cassidy, Clinton, Downer, Darling, Herschman, C.

Kennedy, McLean, Meyers, Penberthy, Panzner, Potter, Shawan, Sterling, Seymour, Walker, Witter and Yates.

Motion by Dr. Angus McLean and supported by Dr. Charles Kennedy that Dr. John Bell be made a charter member of the society. Carried.

Change in by-laws. Meetings. There shall be nine regular monthly meetings, September to May inclusive, at 8 p. m., on the third Friday in the month at the Wayne County Medical Society building. The proposed change to read as follows: There shall be nine regular monthly meetings, September to May inclusive, at 8 p. m., on the second Friday of each month, at a place designated by the chairman of the program committee. Motion by Dr. Raymond Andries and supported by Dr. Wm. Clinton, that the proposed change be made. Carried.

A proposed change of the paragraph entitled, "Duties of Members," was discussed and motion by Dr. McLean supported by Dr. Bell that each member be advised of the proposed change in writing and the subject to be voted upon at the next meeting. Carried.

Chairman of program committee announces the next meeting to be held on Friday evening, Feb. 10, at Harper hospital.

The scientific program was opened by Dr. Frank Walker, who presented two cases of brain tumor. Discussion by Drs. Cassidy, Brooks, Seymour, C. Kennedy and Walker.

Dr. Wellington Yates gave a paper on "Therapeutics of Abortion." Discussion by Drs. Brooks Bell, Witter and Yates.

Dr. George Potter gave a paper on, "Diverticula of the Intestinal Tract," discussion by Drs. Ballin, Herschman, R. Andries, J. Andries, Bell and Potter.

Following the closing of the program, the society was made guests of Providence hospital at lunch.

The regular meeting of the Academy of Surgery of Detroit was held at Harper hospital, Friday evening, Feb. 10, at 8 p. m.

The program was as follows:

Presentation of Patients and Report of Cases. "Rotated Kidney with Displacement of the Ureter," E. K. Cullen; "Infectious Polyneuritis," G. C. Penberthy; "Vesico-Vaginal Fistula," Norman M. Allen; "Empyema with Liver Abscess," William R. Clinton.

IRA G. DOWNER,
Secretary.

NEWAYGO COUNTY

The annual meeting of the Newaygo County Medical Society was held at the DeHaas hotel, Jan. 17, 1922.

Meeting called to order by the President, Dr. P. T. Waters of White Cloud. Minutes of the last meeting were read and approved.

A communication from the secretary of the Medical Advisory Committee of the A. M. A., regarding "State Medicine, Legislative Dictation and Cults" and on motion was adopted by the society.

The society then proceeded to the election of officers for the ensuing year, which resulted as follows: President, Dr. P. Drummond, Grant, Vice President, Dr. W. Geerling, Fremont; Secretary-Treasurer, Dr. W. H. Barnum, Fremont; Committee of Med. Defense, Dr. N. DeHaas, Fremont; Delegate to M. S. M. S., Dr. C. B. Long,

Fremont; Alternate to M. S. M. S., Dr. A. C. Thompson, Hesperia.

A motion was made, supported and carried that papers be rendered by members of the society in alphabetical order of names at all future meetings. There being no further business, on motion the meeting adjourned.

W. H. Barnum,
Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The following program was carried out for our January meeting, and in addition Dr. C. F. DuBois of Alma showed a patient with ulceration on the soles of both feet. The consensus of opinion was that it was a trophic condition.

Dr. Randall and his associates gave us a very practical program.

The program:

Dr. H. E. Randall of Flint, "Fractures."

Dr. W. F. Clift of Flint, "X-Ray of Fractures."

Dr. D. L. Treat of Flint, "Emergency Surgery."

E. M. HIGHFIELD,
Secretary.

MONROE COUNTY

Regular meeting and luncheon at Park hotel, Monroe on Jan. 17 at 12:30. Fourteen members attended. After lunch meeting was called to order and a communication from Med. Advisory Committee, was read. After considerable discussion the resolution was voted upon and adopted and secretary instructed to send a copy to the Medical Advisory committee, the secretary of the State Medical Society and to the Journal of A. M. A. Two instructive papers were then presented. One by Dr. H. L. Meck of Petersburg on "Focal Infection" and the other by Dr. W. F. Acker of Monroe on "Heart Disease in Children." Both papers were thoroughly enjoyed and discussed. It was decided to invite the dentists of the city and county to become affiliated with our county society and four of them from the city were present at this meeting. The meeting adjourned at 3:30.

HERBERT W. LANDON,
Secretary.

HOUGHTON COUNTY

At the January meeting of the Houghton, Keeweenaw and Baraga County Medical Society the following officers were elected for the ensuing year:

President, Dr. H. M. Joy, Calumet; Vice President, Dr. Alfred LaBine, Houghton; Secretary-Treasurer, Dr. A. D. Aldrich, Houghton; Censor for three years, Dr. Chas. Rupprechet, Calumet; Delegate to State Convention, Dr. J. G. Turner, Houghton. Alternate, Dr. A. F. Fischer, Hancock.

A very interesting paper on Thrombosis of the Mesentery was read by Dr. J. G. Turner.

At this meeting the matter pertaining to the contribution to defray the expenses of our legislative committee was brought up. Our society is anxious to do all it can to help out in this matter, but are undecided what actions should be taken in regard to the amount of the contribution. I have been requested to ask you what actions other

County societies have taken. Upon receipt of same I will bring the matter before the society again at the next meeting. This matter would have been brought up before, but I have been unable to attend to it, due to a three-months' sick spell.

A. D. ALDRICH,
Secretary.

CALHOUN COUNTY

Minutes of the meeting of January 3, 1922.

The meeting was called to order following dinner, at the Post Tavern, at 8:00 p. m., by the president, Dr. M. A. Mortensen.

The minutes of the last meeting, the annual meeting, were approved as printed in the Bulletin.

The president made some remarks on the work of the society, and his general plans for the year. He made an especial plea for all to work together for the common good.

On account of the fact that the speaker of the evening had to take an early car, the regular order of business was reversed, and we had the scientific program first: An address by Dr. Claud S. Karshner of Grand Rapids: "Discussion of the Upper Right Quadrant Diseases." It was an interesting and able paper. Discussion, Drs. Eggleston, Squier, Case, Karshner, Eggleston, Stewart, Knapp, Mortensen.

Dr. Case moved a rising vote of thanks. Carried.

The secretary presented application for membership of Dr. W. B. Lewis of the Sanitarium, graduate of University of Illinois, 1912, recommended by Drs. Paul Roth and Benton Colver. This application will be acted upon at the next meeting.

The following communications were received: From Medical Advisory Committee, referred to Board of Trustees; communication from State Board of Health.

The president appointed his committees for the year.

Dr. Kolvoord called attention to the fact that Dr. Wehenkle, of the Roosevelt hospital was sick, and upon motion flowers were ordered, with our earnest wishes for his early recovery.

Motion to adjourn carried. Attendance at dinner, 17; at meeting, 38.

WILFRID HAUGHEY,
Secretary.

TUSCOLA COUNTY

Tuscola County Medical Society met at Caro, Mich., Jan. 19.

Dr. Allen of Saginaw, read a very interesting paper on "Laboratory Methods for the General Practitioner," which was well received and discussed, Dr. Dixon leading in the discussion. Dr. Seeley gave a report of the council's action on the question between the U. of M. and the doctors of the state. Dr. O. G. Johnson of Fostoria, Mich. was elected delegate to the State Society, Dr. Dixon was elected alternate.

An amendment of by-laws was proposed to be acted on at our next meeting. The dues of Tuscola County Medical Society shall be \$3.00 per

annum. The state dues being \$5.00 will make the dues to be collected by secretary \$8.00.

Dr. Dixon extended an invitation for the society to meet at Wayarnega some time in February.

W. C. GARVIN,
Secretary Pro Tem.

Correspondence

Paris, January, 1922.

My Dear Dr. Warnshuis:

Your letter to the faculty of Paris was a great help in establishing myself in the good graces of the powers that be and I wish to take this opportunity of thanking you for the courtesy.

Unless a man has a fair working knowledge of the French language, I would not advise that he attempt to procure an appointment as assistant to the Faculty. I find that it is impossible for me to get as much out of the work here as I had hoped, simply because of my difficulty in that regard. I received the first appointment to be given an American surgeon and although I appreciate the honor, I feel that I shall be able to do much better in some of the other European clinics and after a few weeks expect to go on to Vienna and spend six months there and then back to one of the English clinics in London or Edinborough for several months.

For the benefit of any of the Michigan men who contemplate work in the Paris clinics I would suggest that they provide themselves with letters of reference from some recognized medical organization in the state and also personal letters of introduction to some members of the faculty, from men who have previously met these professors. They should also bring original diplomas from their medical schools and certificates of membership in the various societies. Armed with these offensive weapons, they should make their approach with all diplomacy and patience and finally they will be received, but withal there is an atmosphere of condescension which is hard to endure.

For those who have only a few days or weeks to spend here, I would advise to go to the American University club and ask for Mr. Levy, who will make arrangements for any American doctor to attend the clinics of his choice.

There are several things which impress me in the local clinics. In the first place the surgeons here have their patients in the semi-recumbent position or even sitting up in 24 to 48 hours after the most severe operations. Today I saw a man who was operated on for gastrectomy yesterday morning and he was sitting bolt upright with a strap to the foot of the bed by which he was permitted to pull himself one way or the other. The next most startling thing I have observed is the diet they feed recent cases of gastroenterostomy. After three days they put them on a solid diet with no restrictions as far as I was able to observe. I asked Dr. Hartman, (dean of Surgery at Hotel Dieu about this and he only smiled and said, "Why not? If the operation is successful it will not hurt. If there was bad technique they would die any way. Why not?"

At Hotel Dieu they have just installed a section for inter uterine application of radium in fibroid cases. It was opened this week and already they have 26 cases under treatment. The men with

whom I have talked are dubious of the radium therapy however, and are not as ready to accept it as we Americans.

As to technique I believe we can teach these people a great deal except as it concerns fineness of touch. They almost all use the crush and cut methods instead of sharp dissection. They also use non-absorbable suture material where we would never even consider such procedure. In the wards it is remarkable how few cases seem morbid. When they tell me that this case is one day old and that one two days old. I can hardly believe it.

They keep post-operative cases in bed rather longer, however, than we consider necessary and maintain a ward discipline which is almost military.

If I continue with the faculty here I will be glad to let you know of my more mature impressions, if they are of any interest, or if I go out (as I expect to do) before completing my service, will be glad to let you hear of the present situation in Vienna and Great Britain.

Allow me to again express my sincere appreciation of your courtesy to me.

WM. E. WILSON.

Detroit, Mich., Feb. 8, 1922.

Editor:

I am enclosing the titles of Dr. Plaggemeyer's Post Graduate Lectures at the Women's Hospital for this year; also the names of the doctors who will continue this work at the institution.

The lectures have been well attended, Dr. Plaggemeyer usually having about 50 physicians. If you are so kind as to publish the giving of these lectures for me, will you emphasize the fact that doctors from the neighboring towns or country districts are very welcome to them. Our aim has been to give continuous courses covering the subject under discussion up to date.

Dr. Peterson from the University of Michigan has promised to do something for us, also Drs. Harry Schmidt, Hirshman, Hoobler, and Hathaway. Another year we hope to give more hours per week.

Very truly,

C. HOLLISTER JUDD.

President Medical Board, Women's Hospital.

LECTURES IN UROLOGY—1922

1. History of Development of Urology. Scope. Embryology. Practical Relations. Development of Prostate. Practical Relations.

2. Secretion of Urine. Evidence for different theories. Discussion of osmotic tension, threshold bodies, nitrogen metabolism, dextrose eliminations, albumen formation, etc. Vicarious activity of skin, saliva and respiration, bowels.

3. Renal Function. Survey of field. Practical tests, and extract method of doing them. Their value. Discussion of kidney reserve energy.

4. Prostate. Review of anatomy from working standpoint. Inflammation. Enlargement—benign, malignant. Cysts, oedema, stone, tuberculosis. Relationship to obstruction. Albarran's lobe. Median bar.

5. Nephritis. General Survey. Infections. Colon vs. T. B. vs. Staph. aureus. Pyelitis. T. B. of tract.

6. Lithiasis. Tumor. Hematuria. Cystitis. Nervous involvements.

7. Pyelogram clinic.

8. Gonorrhea. Stricture. Seminal vesiculitis. Epididymitis. Spinal meningitis. Arthritis, etc.

Book Reviews

ABDOMINAL PAIN. Prof. Dr. Norbert Ortner. Translated by William A. Brams, M. D., pp. 362. Rebman Company, New York.

This volume presents the opinions, teachings and experience of the Viennese school. It is a commendable presentation of an important subject.

PITFALLS. By A. J. Caffrey, M. D., Milwaukee. Cloth. Richard G. Badger, the Gorham Press, Boston.

A pleasing narrative of the discursive type, setting forth the pitfalls that surround the doctor in his daily work. Interesting because it is human.

SOUTH AMERICA, FROM A SURGEON'S POINT OF VIEW. Franklin H. Martin, C. M. G., M. D., F. A. C. S. with introduction by William J. Mayo. Fleming H. Pevele Co., Chicago.

This is a pleasing and interesting narrative and comment imparting the impressions gained by Dr. Martin during his visits to the South American countries in 1920-1921.

A. M. A. News

REPORT OF COMMITTEE OF BOARD OF TRUSTEES AND JUDICIAL COUNCIL ON CIRCULAR ISSUED BY "MEDICAL ADVISORY COMMITTEE" OF THE A. M. A.

[At its meeting held at the Association headquarters, February 2, the Judicial Council considered, among other matters, a printed letter recently circulated widely by a "Medical Advisory Committee." This letter was specifically addressed to the secretaries of the American Medical Association; with it were a preamble and resolutions which these societies were asked to adopt. The Council deemed it advisable to discuss the matter with the Board of Trustees, since that body also was in session. The Council presented the matter to the Board, pointing out that even though the matter emanated from a committee whose origin and membership had not been revealed, the communication had been considered by a few component societies as semi-official in character and acted on as such, and recommended that an official statement be published. After due consideration a committee, consisting of the chair-formulate a brief statement for publication in The man and secretary of the Board of Trustees and of the Judicial Council, respectively, was appointed to Journal. The statement follows.—Editor.]

STATEMENT OF THE COMMITTEE

Recently there has been circulated an open letter signed by a "Medical Advisory Committee" and addressed to the component county societies of the American Medical Association. This letter with its accompanying preamble and resolutions was published in The Journal, Jan. 21, 1922, page 198, to-

gether with correspondence relating to the subject. The circular presents six postulates:

The public and the profession are being sold out to:

1. Foundation control of "full-time" medical education.
2. Lay board domination and the "closed shop" hospital.
3. Socialized state medicine, subsidized community health centers and hospitals under political or university control.
4. Legislative dictation of therapy and fees.
5. Demoralization of medical standards by the expansion of cults.
6. Exploitation of the specialties by lay technicians.

These postulates call attention to certain conditions, existing and anticipated, some of which are detrimental to the public welfare and a menace to the practice of medicine, and it is charged at the same time that the existence of these conditions is due to "so-called leaders" in the Association. A method for correcting the evil is suggested, namely: The instruction of the representatives to the House of Delegates of the American Medical Association to support three specifically named propositions:

A. A change of policy and leadership in the A. M. A. pledged to the immediate abolition of the evils mentioned, and constructive protection of medical interests.

B. The repeal of multiple representation and plural voting privilege by section delegates.

C. The election of Trustees for a period of two years; five Trustees to be elected one year, and four the next to prevent the Trustees from perpetuating oligarchical rule.

Had this "Medical Advisory Committee" called attention to the conditions without exaggeration and made constructive suggestions for combating them, it would have deserved praise. But harm, not good lies in the manner in which the subject is presented and in the unwarranted accusations made in the body of the letter against the Board of Trustees and the officers of the Association. The tendency of this communication is to breed discontent, suspicion and disloyalty at a time when there is great need of calm, deliberate consideration of how best to check certain dangerous tendencies affecting the practice of medicine and to remedy serious conditions that already exist.

The charge that the House of Delegates, the Board of Trustees or that the leaders of the Association have promoted or in any way fostered the conditions named is submitted without evidence and is without foundation.

The officers, the Trustees of the Association, the various Councils and a majority in the House of Delegates are aware of the conditions referred to in the postulates. Some of these conditions primarily require correction by local and state medical organizations, the national association cooperating.

Inferentially at least, the Board of Trustees is the body that is held blamable for the alleged sins of omission and commission, since one of the remedies proposed is shortening the term of office of the members of the Board, disregarding the fact that consideration of the problems presented by the six postulates falls primarily within the jurisdiction of

the House of Delegates, not of the Board of Trustees, and that it is the function of the various councils and committees, having jurisdiction, to carry out the specific policies formulated by the House. These councils and committees are directly responsible to the House of Delegates, not to the Board of Trustees.

The question of the election of delegates by the Sections is one which must be decided by the House of Delegates itself. Such representation has been in existence since the reorganization of the Association, and it is presumed that good reasons existed for providing it. The charge that these delegates have acted as an organized bloc against the best interests of the profession demands incontrovertible proof.

The communication, both in language and in spirit, is destructive in character. What is needed are well-thought-out suggestions as to the best method of combating the evils that threaten public and professional welfare and which will tend to build up and not to destroy. The undersigned committee recommends to the members of component county societies that they give careful study to the whole proposition before adopting any resolutions or making any recommendations to the House of Delegates of their state associations. It is earnestly recommended that the House of Delegates of each state association select as representatives to the House of Delegates of the American Medical Association men who have given thoughtful consideration to these subjects and who have primarily at heart the best interests of the public and of the medical profession. It is believed that the efforts of organized medicine will be successful in the correction of evils which threaten to economic status of the medical profession and the welfare of the public in proportion to the general ethical standards which the members of the profession follow in their own professional and social relationships.

W. T. Sarles, Chairman, Board of Trustees.

Frank Billings, Secretary, Board of Trustees.

M. L. Harris, Chairman, Judicial Council.

A. R. Craig, Secretary, Judicial Council.

IODALBIN

The iodides have held their ground in professional esteem not because, but in spite of the attitude of the patient toward them. They are disagreeable to take, and yet in many cases prolonged courses of treatment are necessary. An iodine compound that does not dissolve in the stomach, and is therefore without irritating effect upon that organ, is marketed by Parke, Davis & Co., under the name Iodalbin—an albuminate or protein compound of iodine.

Iodalbin contains about 22 per cent of iodine in organic combination—not a large proportion as compared with the iodides, and yet the dose is about the same, for the reason, as stated by the manufacturers, that the iodine in Iodalbin remains in the tissues, accomplishing its therapeutic mission, much longer than the iodine in inorganic combinations.

Iodalbin is put up as a powder in ounce vials and in 5-grain capsules.

The Journal

OF THE

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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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GRAND RAPIDS, MICHIGAN, APRIL, 1922

No. 4

Original Articles

THE USE OF TOXIN-ANTITOXIN IN THE PREVENTION OF DIPHTHERIA

WORTH ROSS, M. D.
DETROIT, MICH.

When Dr. Roux, of the Institute Pasteur, read a paper before the International Hygienic Congress in Budapest, giving the results of his treatment of several hundred cases of diphtheria with the new serum, a scene of wild enthusiasm resulted resembling an American political assemblage cheering a popular candidate. His more extensive experience confirmed the original work of the Berlin school of bacteriologists led by Dr. Behring. That was in 1894, and the complete eradication of diphtheria was loudly and confidently proclaimed.

With the introduction of antitoxin there was an almost immediate reduction of mortality from this disease to one-third of that of pre-antitoxin days. However, during the past 10 years the mortality has changed little. According to Park, morbidity has continued about the same as it was before the work of Behring, Roux and others gave the world a specific and practically sure remedy for Klebs-Loeffler infections. So long as people are prone to regard a sore throat as "only a sore throat" and do not seek medical aid promptly, and so long as cases do not present typical manifestations and physicians fail to administer antitoxin until a definite diagnosis is established, just so long will the death rate from diphtheria continue a reproach to the medical profession and a slur on the intelligence of the people.

The State Department of Health has called the attention of the physicians to the high death rate from diphtheria in Michigan stating that in 1918 our state led the world for high mortality, with a rate 83% higher than that of the State of Wisconsin.

Detroit, the largest center of population in Michigan, has among 19 leading Amer-

ican cities, the unenviable second place for high mortality. Her death rate of 36.2 per 100,000 population during 1920 was exceeded only by Buffalo with a rate of 58.7. It is practically double that of New York (18.6), Cleveland (16.5), Boston (18.7), Washington (14.6) and Newark (14.8), and treble that of Los Angeles (10.3), Cincinnati (12.9), Minneapolis (11.7) and Seattle (10.3) and six times that of New Orleans (5.7). Such cities as Chicago (23), Philadelphia (23.3), St. Louis (33.6), Pittsburgh (19.6), Milwaukee (25.6), St. Paul (24.6) and Jersey City (20.8) are well below that of Detroit.

Is this not a showing to engage the most serious thought and earnest activity of physicians and health authorities alike?

The problem of diphtheria was not entirely solved by the introduction of antitoxin. In view of the indifference of the public to apparently harmless infections together with tardy diagnosis and delayed treatments, it is evidently necessary to anticipate the occurrence of the disease and produce an immunity to it before the present morbidity and mortality can be reduced to an appreciable extent.

Behring and his associates, in 1913, were the first to attempt to immunize human beings with neutralized diphtheria toxin. The same year Schick published a description of a clinical test by which susceptibility can be determined. Doubtless all of you are familiar with the work done along this line in this country under the leadership of Park and his associates. It is to them that credit is due for the practical application of the work since the records of Behring and Schick are not available.

At the risk of making needless explanation, I shall state certain details of the test.

In performing the test we have followed the technique of Schick, which consists in introducing intracutaneously 1 c. c. of salt solution containing 1-50 M. L. D. (minimum lethal dose) of diphtheria toxin for a 250 gram guinea pig. The site of the injection

is the flexor surface of the forearm. A control injection is made two inches or more below the other. For the control some of the toxin solution is boiled, thereby destroying the toxin, but leaving the solutions identical in other respects. Care must be exercised that the dosage is correct and that the injections are made into the denser tissues of the skin layers. No reaction results from a subcutaneous injection. Platinum-iridium needles, which may be sterilized by flaming, preferably not larger than 26 gauge, and two one c. c. tuberculin syringes, graduated to hundredths, are used. One-tenth c. c. properly injected will raise a white round wheal on which the hair follicles will appear as slight depressions. We have found that the toxin dilution loses little, if any, potency and gives the same reactions after a week as the freshly prepared, provided the solution is kept cold at all times. Parke, Davis & Company furnish both toxin and control in convenient form.

A positive Schick reaction usually appears in 48 hours, but it is not well to record negatively without subsequent observations. A positive test reveals a circumscribed redness and slight skin infiltration measuring one to two centimeters in diameter at the site of injection. This persists for at least a week and on fading usually shows superficial scaling and a brownish pigmentation which may remain visible for months.

The pseudore action frequently found in older children and adults shows a protein reaction which has nothing to do with the toxin involved. In such cases repeated observations are necessary in order to determine whether or not there is any evidence of a toxin reaction after the control has cleared up.

There is little pain or discomfort connected with the administration of the Schick test provided sharp needles are used, and occasional slight local itching and heat are the only subjective symptoms ever met.

This test is valuable in determining susceptibles for either prompt passive immunization by antitoxin in the event of an epidemic or known exposure to the disease, or for active immunization by means of injections of toxin-antitoxin. The latter is a slower method, but once established the protection is believed to be permanent, while the former is of value for only a few weeks at best as there is little evidence of the stimulation of anti-body formation in the blood and the antitoxin is soon eliminated.

The response of individuals to toxin-

antitoxin varies. It appears that age as well as racial or family characteristics may affect it. Park reports 70% of susceptibles protected by a single injection, 80% by two, and 90% by three injections. The remaining 10% are more resistant and require further treatment. From one to three months is the period required for the full effect of a single injection of toxin-antitoxin in stimulating the development of anti-bodies in the blood.

The toxin-antitoxin which we have used has been the product of Parke, Davis & Company. It is obtainable in 1 c. c. ampules containing 400 units of toxin neutralized with antitoxin. That dosage may be given to any age with safety although some physicians have given $\frac{1}{2}$ or $\frac{3}{4}$ c. c. to babies under a year. I have seen no reactions other than an occasional rash in the very young from any dosage employed. Older children and adults, however, give a reaction similar to that of a typhoid vaccination, varying in degree from a slight soreness at the site of injection (usually the arm) to headache and feverishness, and, in the case of some adults, to chills and prostration lasting two to four days or even longer. These observations are based on approximately a thousand injections.

It has been most gratifying to note the interest in the subject of diphtheria prevention on the part of parents generally and of those having the care of dependent children in charge.

At the Protestant Orphan Asylum in Detroit, the work has progressed along definite lines and observations on their group appear to present a valuable contribution to our experience and strong evidence of the value of the effort. This institution has a capacity somewhat in excess of a hundred, 102 being the largest number of children cared for at any time since entree was granted six months ago through the courtesy of the staff. The children range from three to 14 years of age. Almost all attend the public schools and receive visitors at intervals, making contact with carriers an ever-present problem. The institution is distinguished for its home-like spirit and wholesome discipline. The children themselves have given interested co-operation in the work.

A little more than six months ago all of the children were tested and those showing positive reactions were given a single injection of 1 c. c. of toxin-antitoxin. Children arriving subsequently were similarly treated shortly after admission. Three months later the entire number were again

Schicked. Of those positive at the first test 19 or 45% were definitely negative on the second test. Others exhibiting very slight reactions usually were called positive and given second injections. Shortly after the second test the first clinical case of diphtheria developed in the orphanage in a boy of 7½ (C. Y.) who had reacted markedly on the first test and so slightly at the time the second test was read that he was believed to have developed immunity. Similarly—F. McM. girl 7, developed a clinical case after a single injection of T. A. and six weeks following a negative reading of Schick test.

Although proven not to be completely immunized these cases were mild ones. Subsequently ten additional pharyngeal cases developed and were removed to the Herman Kiefer hospital. Consideration of these cases individually is interesting:

L. W., girl 7½, was positive on second test, but not given second injection of toxin-antitoxin as she was quarantined for chicken pox.

W. S., girl 10 and L. P., girl 7, positive on admission, did not get toxin-antitoxin, being isolated for measles.

A. M., girl, 11, developed diphtheria 23 days after initial injection of T. A.

J. B., girl, 9 the latest arrival, not tested

B. C., girl 8, developed diphtheria three months after initial injection of T. A.

E. O., girl 5, developed diphtheria 47 days after second injection of T. A.

M. M., boy, 6, developed diphtheria 4 weeks after second injection of T. A.

One nurse, who had not been tested, developed a clinical case.

I. R., girl 10, the most recent case in the institution, developed 12 weeks after a negative Schick reading.

During this period 19 carriers were found in the institution. Of these nine reacted negatively to two Schick tests; one had received a single injection of T. A. two months previously; four had received two injections of T. A., the second being as late as 28 days previously; three had become Schick negative after single injections of T. A. and one was a nurse who had not received the test.

It is interesting to note that in spite of the carriers and contacts no antitoxin was given in the home excepting to one carrier who exhibited nasal symptoms with slight temperature. This child and one other suspicious nasal case who was not given antitoxin, had become Schick negative after initial injections of T. A. Only in these two individuals and the last case developed

could any question of the accuracy of the tests be raised. Excepting these (if they were true infections) no case developed among the Schick negative. As the cases generally were mild it is believed that the one or two injections of T. A. administered may have modified the disease. Had the tests not been made the wholesale administration of prophylactic antitoxin would have been in order.

In the current issue of the American Journal of the Diseases of Children, Blauener reports the occurrence of light clinical cases in a New York orphanage with local manifestations, but little toxine or other general symptoms.

Of the children who were Schick positive on two tests six months and three months previously, 18 remained in the institution. On a recent third test only five of these were definitely positive, but it was deemed best to give six of the others the benefit of treatment and consider them faintly positive. Seven were definitely without any reaction to the Schick test.

It is believed that in the future a more prompt and efficacious immunization can be accomplished by administering susceptible toxin-antitoxin at intervals of two to four weeks for at least three injections, which, according to Dr. Park, would protect at least 90%, repeating the Schick test after three months. Once the entire group are immunized the incomplete protection of newly arrived children will not provide a problem as the field will be infertile for a considerable spread of the disease.

In conclusion I desire again to call attention to the public records of Detroit for the consideration of those of us who are practitioners. Of the 370 individuals, who died from diphtheria during 1920, 328 or 88.6% had not reached the age of 10; 58.6% were under 5, which is usually considered school age; 31.1% were between one and three, and 7% were under one year. These facts show the disease to be pre-eminently one of early childhood. Both experience and the Schick test indicate that the period of greatest susceptibility is from the latter months of the first year to the third year, when at least 75% lack natural protection. Although as yet only a small series of our tests on mothers and new born babies indicate that the babies are susceptible from birth when the mothers themselves are susceptible. The pre-school age is the period when active immunization is most needed. Among the very young there has been an entire freedom from harmful or uncomfortable reactions of any sort to the

administration of toxin-antitoxin. It is not uncommon that nurses are unable to distinguish the treated from the untreated, and mothers frequently inquire, "When does the injection take effect? I have seen nothing unusual as yet."

Because of the time consumed in making accurate readings, the Schick test is one which is not likely to appeal to large numbers of busy practitioners. Even mild reactions from toxin-antitoxin may result in such complaint from a child of ten or more as the deter the parents from continuing the treatment. In view of the low mortality occurring after the ninth year, it is evident that we should concentrate our efforts on the earlier years and develop a population immune to the infection.

In consideration of these facts set forth, I desire to offer for your consideration my recommendation that all physicians who have the care of babies and small children endeavor to immunize them during the period when they are most susceptible, beginning between the sixth and ninth months. Three or more injections of toxin-antitoxin may be given at intervals of one week to one month, depending upon circumstances obtaining in the family and in the vicinity regard to diphtheria prevalence, without appreciable discomfort to the patient or objection on the part of intelligent parents. The Schick test, if desired, may be reserved until some later date and used to determine whether or not the immunization has been complete.

I believe it is our duty as physicians to inform parents as to the seriousness of the disease among the young and the possibilities of preventive treatment. From my own experience it is evident that intelligent parents appreciate the interest shown in bringing the matter to their attention and are ready to have the means suggested used to prevent diphtheria. I earnestly commend this to your consideration.

DISCUSSION

DR. HENRY F. VAUGHN, Detroit: I think we are all interested in what Dr. Ross has had to offer. There is no question at all in my mind about the value of the use of toxin-antitoxin. I do, however, want to say just a word or two about these so-called statistics. Of course, you can prove anything by statistics. We are not proud of our diphtheria record in Michigan, as a whole, nor in the city of Detroit. A statement has appeared in the past, from time to time, that the diphtheria death rate in Michigan is higher than it is in any other state in the Union, and I guess there is no question about it. It is higher. When you study a death rate, however, for any specific cause, you must go a little farther than the consideration of merely a crude death rate. What is true for Detroit, is true for the state as a whole. Detroit has the highest birth rate of any city in the country. We have a birth rate which runs from twenty-seven to thirty per thousand. Most cities have a birth rate of about

twenty per thousand. Detroit, and Michigan as a whole, are made up of young communities, like Flint, and other prosperous cities, which have had attached to their communities people of marriageable age, people who are out to make a start in life, and who are attracted to the industries of this state. Consequently, we have that type of people who are building up their homes, building up their families, and we have a high birth rate. The result is that Michigan and Detroit have a very high proportion of their population in the age group where diphtheria is most prevalent.

As Dr. Ross has said, from the later months of the first year, until the third or fourth year, people as a whole are more susceptible to diphtheria; so that really to compare our diphtheria record in Michigan with that of other states, we ought to correct the statistics for age distribution.

If you look at our statistics, for our state, for our large cities, you will find that our cancer death rate, and the death rate from diseases of adult life, is much lower than for New York City, for example, or New York state, and other parts of the country. That probably does not mean that we have any less cancer per population at that particular age group, but there should be a correction made in all statistics; and I merely speak of this so that nobody will have the impression that Michigan is so much worse in this respect than other states; and with the free distribution of antitoxin the coming year by the state health department, there should be a marked reduction in the diphtheria death rate.

DR. LAFON JONES, Flint: I am glad to see that he is very orthodox, meaning that he believes as I do. (Laughter). I think that we might well overlook the Schick test entirely, and go ahead and give the toxin-antitoxin as a matter of routine to every infant, inasmuch as the Schick test is difficult, and the reaction of toxin-antitoxin is negligible.

I think also that we will never get very far with it until we sell the idea to the general practitioner. I thought I had a great deal of influence with parents in Flint, and I recommended the toxin-antitoxin to a great many of them, and my experience was they all went and asked their family physician if it was all right before they came back and took it. I might also warn you, if you want to make the use of toxin-antitoxin a routing thing in your community, it would be best to avoid giving it to adults. You can do more to discredit the use of toxin-antitoxin by giving it to adults with one or two bad results, than the good you can do in years. I had the personal experience of putting about seven nurses in our hospital to bed in one day, by giving them toxin-antitoxin. It made me very unpopular there for a while.

DR. WM. DeKLEINE, Flint: I might also suggest that boards of health, rather than giving it to all children in schools, offer it to kindergarten and first-grade children each year, through their parents and concentrate upon children of that school age.

DISEASE AND TREATMENT OF THE MAXILLARY SINUS

FERRIS SMITH, A. B., M. D., F. A. C. S.
GRAND RAPIDS, MICH.

The purpose of this paper will be a resume of the etiological factors, a discussion of gross pathology, a review of cardinal signs and symptoms, the diagnostic points, and a criticism of the accepted treatments of disease of the maxillary sinus, rather than an attempt to review the literature on this subject. It is a reasonable assumption that you are all acquainted with this literature and

have access to many excellent compilations and texts on this subject.

ETIOLOGY

The frequent infection of this sinus may be credited to the anatomy of its nasal wall and proximity of the teeth to its floor, together with the fact that it has direct connection with the frontal sinus in a large per cent of cases. The blood supply enters the pars membranacea and ostium at which point it is surrounded by loose glandular tissue which swells readily from infection or external pressure to produce congestion, and hence to create an ideal condition for the incubation and extension of disease. The bony walls have double blood supply from the periosteum of either side and hence escape the frequency of involvement observed in the lining membrane.

Predisposing local factors of infection are abnormalities in the size and position of the middle turbinate, deformities of the septum and hypertrophic ethmoiditis. Direct factors in order of importance and frequency are: (1) Extension from the nasal mucosa (acute rhinitis, etc.); (2) from the alveolus by contiguity or continuity; (3) the conveyance through the circulatory system in in-

the relative importance of these factors. It is quite natural that the rhinologist should feel that a large percentage of cases are nasal in origin because his clientele is largely made up of patients with nasal pathology.

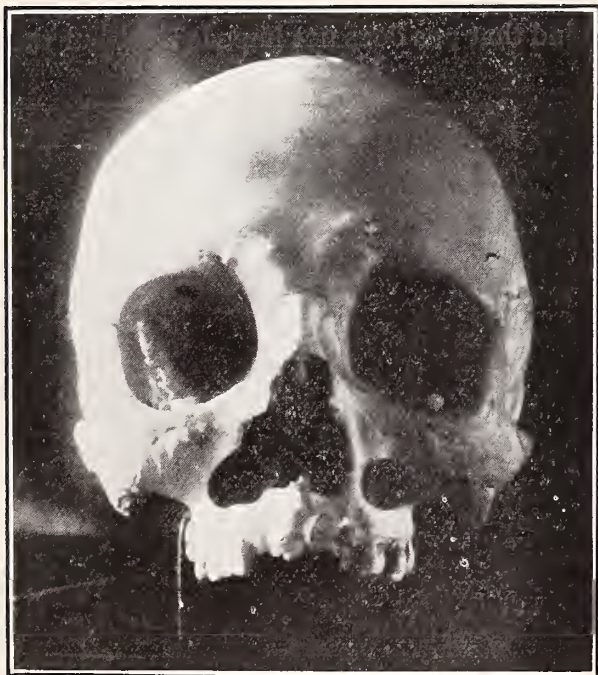


For similar reasons, the oral surgeon comes to believe that the teeth are the predominating factors. However, too great importance should not be given to the alveolar process and teeth. Both should be carefully examined in completing the findings on any case but recent statistics show that not more than twenty-five per cent of infections are attributable to this source. Brophy and his pupils still claim that about ninety per cent of infections are dental in origin.

PATHOLOGY

The pathology in acute cases consists of passive congestion, inflammation, and supuration of the lining membrane; occasionally there is ulceration and extension of the infection to the bone. Where the origin is dental, there is added a local bone necrosis. If the process is chronic, there is added to the above pathology, polypoid degeneration, retention cyst formation and sometimes necrosis of the bone. Occasionally one notes pressure atrophy of the bone with no necrosis. When the antrum acts as a reservoir for overlying chronic sinuses, there is frequently no marked changes in its lining membrane.

Chronicity depends upon the general resistance of the patient, the type of infecting organism, the presence of nasal deformity obstructing aeration and drainage, repeated



(Fig. 1)

fectuous diseases (influenza, etc.); (4) drainage from overlying sinuses; (5) syphilis, tuberculosis, malignancy and osteomyelitis; (6) foreign bodies (teeth); (7) traumatism (galvano-cautery).

Considerable discussion has arisen over

infections, and the presence of infected or abscessed teeth.

SYMPTOMS

The symptoms and signs of acute sinusitis vary with the duration of infection. Frequently the patient complains of a "one sided



nose cold" or a sense of fullness about the eye and face. More frequently, he complains of pain, purulent discharge from the nose, loss of taste and smell and the usual complex of symptoms which mark any acute infection. The presence of pain depends upon the degree of inflammation and consequent patency of the ostium. Occasionally it is the only symptom present. Its classical location is about the supra-orbital nerve but it is sometimes referred to the teeth and malar region. In the early stages it is constant but later becomes remittent and is most intense after arising until about two in the afternoon. It is aggravated by motion or jarring the head.

The signs in the early stages consist of stippling and swelling of the bulla with increasing and diffuse swelling of the entire lateral wall. Pus appears later—about the second day—in the middle meatus. There is occasionally edema of the lids. Rarely, orbital edema and phlegmon, meningitis or general pyaemia may complicate the picture.

The chronic cases offer a wide variation of symptoms and signs. Frequently there is nothing but a foul odor to call the condition to the patient's attention. Pain is rarely present unless there is bone inflammation. Headache, in the form of neuralgia, dull aching over the entire side of the head, or mi-

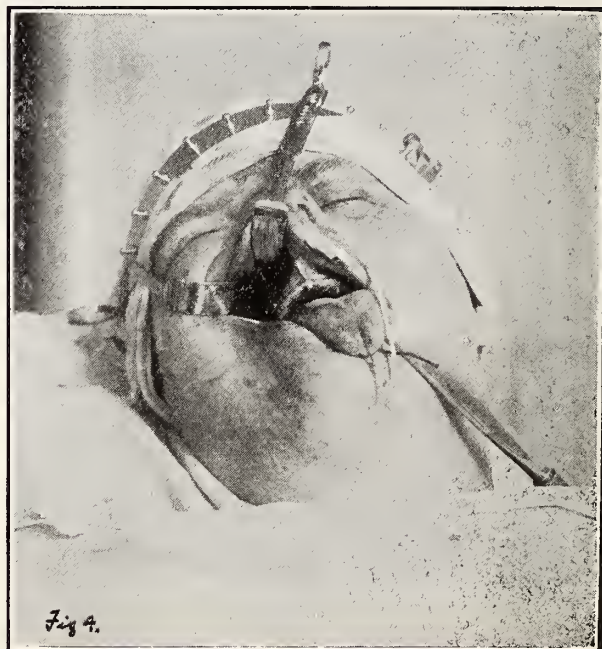
graine is a frequent complaint. Dull aching over the sinus, the malar and the zygoma is occasionally the only symptom. This may be constant or intermittent in character and is sometimes referred to the opposite side.

Permit me to emphasize another group of symptoms which should cause investigation of the sinuses. These constitute the typical picture of purulent bronchitis, bronchiectasis, and infective asthma. All too frequently these conditions depend upon a chronic sinus which is overlooked or ignored.

The signs of chronic sinusitis are: Secretion which may be serous, mucoid, mucopurulent, or purulent and which may or may not possess odor; hypertrophy and polypoid degeneration; and chronic pharyngitis. In rare cases one notes thinning of the bony walls and pain on pressure.

DIAGNOSIS

The diagnosis of either condition depends upon the history; the presence of the above symptoms and signs; dental findings, both objective and radiographic; radiographs; and the use of the diagnostic needle. It is well at this point to emphasize again that the transilluminator and radiograph are only links in the diagnostic chain and should never be depended upon alone. Keep in mind that pus does not impede light but that



the shadow depends upon thickened membrane or abnormally thick bone which may vary in thickness on the two sides. The needle findings are positive and readily obtained without discomfort to the patient.

TREATMENT

Treatment of the acute cases is quite simple. Aspirin and soda is administered in large doses during the acute onset and the patient frequently poultices the lateral nasal wall with steam or hot saline irrigation. Balsams and tinctures added to the water have been of no service in my hands nor do they appeal to my sense of reason. Argyrol or silvol, either in an atomizer or on tampons, are frequently used. I am opposed to adrenalin and cocaine sprays because the transient benefits do not balance the bad late effects of these drugs. Suction has been of no value in my hands. If prompt relief does not follow these measures, the antrum is washed out through a needle inserted under the lower turbinal or drained at this point through a "window opening." Frequently a single or a few lavages through the needle produces prompt cure. In making a "window opening" it is better to trim the turbinal diagonally from above downward, rather than to amputate its anterior end. This prevents subsequent hypertrophy of the posterior end of the stump. A perforation about a quarter of an inch in diameter is made at the lowest point in the wall with a Welhemski trocar and enlarged with a curette. The antrum is irrigated daily with saline. Ten days to two weeks is usually all that is required of this treatment.

The treatment of an antrum through a

tion of the antrum from the mouth need not be entertained here.

The choice of treatment in a chronic case should depend upon several factors. One not only has to consider a method that will heal the antrum but must also consider the comfort, both mental and physical, of his

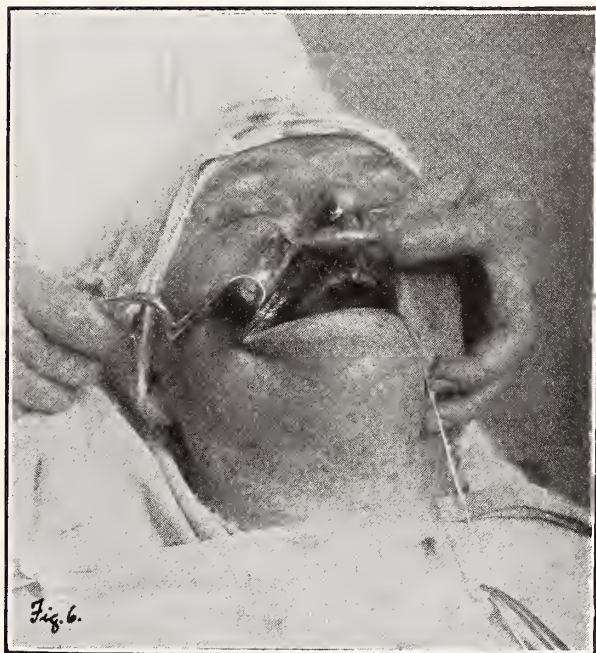


Fig. 6.

patient, of the time required and the relation of this to the social status and financial ability of the patient, etc., etc.

The cases of bone involvement and marked polypoid changes demand radical surgery of some type. Of the other cases, about seventy per cent will heal after free drainage, aeration and intelligent treatment. In my practice, these patients are operated under a local anaesthetic after Dahmer's method—a large "window opening" with an intumed mucus membrane flap to prevent closure by granulation—and instructed in the irrigation and care of their case. They report for observation weekly and, if after six weeks of care they do not show a positive tendency to heal, they are radically operated.

A choice may be made from six operative procedures.

(1) The Krause-Mikulicz procedure modified by Lathrop, consists in the removal of the anterior third of the lower turbinal and the removal of a large part of the wall along the whole length of this turbinal. This permits of irrigation and direct treatment of the lower part of the antrum. The opening partially or completely closes by granulation. There are many failures following this method.

(2) Dahmer's method consists in resect-

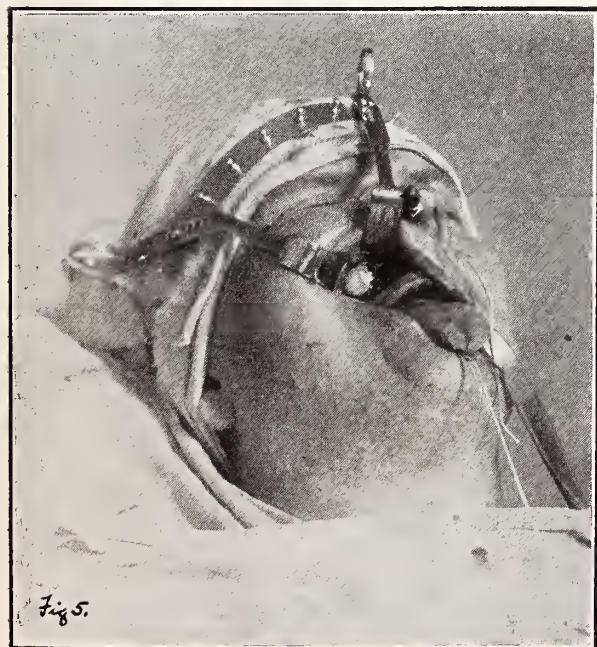
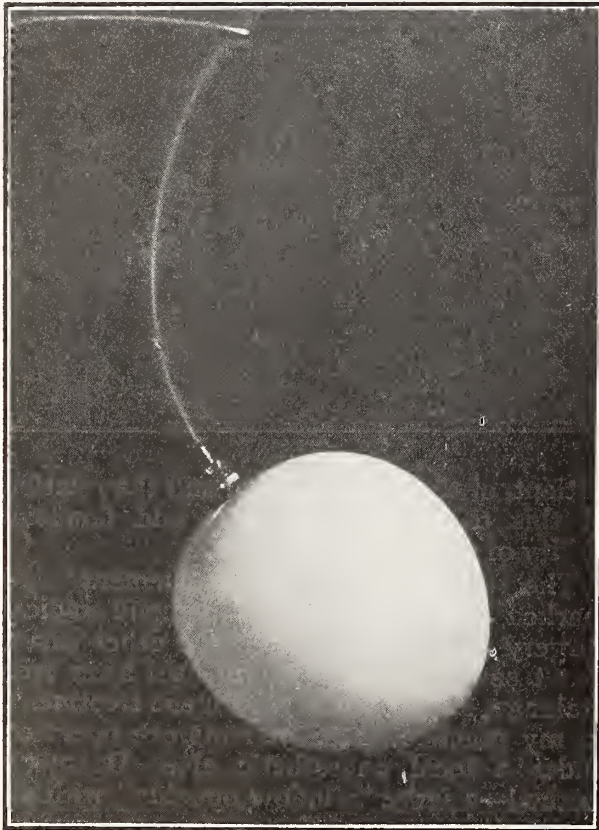


Fig. 5.

tooth socket is only excusable when the infection depends upon that particular tooth. No tooth is near the floor at its most dependent point. A discussion of the effect of pus draining into the mouth and of reinfection

ing the anterior third of the lower turbinal and making a flap which is turned down on the lateral wall at this point. The uncovered bone is removed and the flap turned into the antrum to prevent granulation. The advantages and results of the procedure are otherwise the same as in method No. 1.

(3) Canfield's Operation. In this procedure the antrum is entered through the nostril from the junction of the anterior and nasal walls. The wall is cut away freely above and below so that the anterior-superior angle can be curetted and drainage furnished at the lowest point. It preserves the



(Fig. 7—Balloon)

turbinate and permits direct treatment by anterior rhinoscopy. It is a very efficient procedure in many cases.

(4) Caldwell-Luc Operation. This procedure consists in a sufficiently large opening through the canine fossa to permit inspection and instrumentation of the antrum. The lateral wall beneath the turbinate and all pathological areas are removed. The mucus membrane covering the lateral wall is turned onto the floor of the antrum to prevent granulation of the cut wall. The incision is closed and the cavity packed and dressed through the nose. Treatment consists of frequent packing, irrigation, mopping and powdering. Healing occurs in a few weeks or several months, depending

upon the extent of mucosa removed, presence of bone pathology, etc.

(5) Denker's procedure is a more radical bone operation resulting from the observation of many failures after the Caldwell-Luc technic. These failures depend largely upon the inability to curette the anterior-superior angle through the canine fossa opening. To remedy this fault, Denker cut away the bone at the juncture of the nasal and anterior walls from the floor to the roof and removed enough of the anterior wall to allow free access to the cavity. Otherwise the procedure is the same as the Caldwell-Luc.

(Fig. 1. Caldwell-Luc opening on the right. Denker opening on the left.)

In all of these operations healing is slow, dressings are more or less painful and the expense and loss of time for the patient is considerable. The end result of tedious weeks of care is scar.

The technic which is now offered applies to those old chronic cases where large areas or the entire mucosa requires removal. It presents striking advantages to both patient and surgeon in the simplicity of its application and the small amount of after care required to obtain a perfect result.

The incision is made from the labial frenum to the second bicuspid tooth and the bone uncovered so that the (Fig. 2 and 3) pyriform opening, the junction of the anterior and nasal walls and the canine fossa are clearly in view. Next the soft attachments of the nostril and the mucosa on the nasal wall beneath the lower turbinate are elevated from the bone. An opening, similar to that in the Denker procedure, is made in the canine fossa and the mesial wall beneath the lower turbinal attachment is removed (Fig. 4). This bone removal includes the angle of junction of the two plates from the floor to the roof. The diseased lining is removed and the cavity packed with adrenalin gauze while two Thiersch grafts of proper size to line the entire defect are cut from the arm or thigh. The mucosa which covered the mesial wall is now turned down on the floor of the antrum. The grafts are spread smoothly over the dry bone and are held in place with gentle, even pressure by a rubber balloon (Fig. 5). This balloon is attached to the end of a rubber tube which is lead out through the nostril. The incision is closed with horse hair. (Fig. 6).

On the third or fourth day, the balloon is deflated and removed through the nostril. (Fig. 7). On the following day the antrum is gently irrigated with saline and dried with air. This is repeated on five or six occasions at two-day intervals until desquamation of

the skin is complete. At this stage one finds a smooth skin covering the entire cavity.

At the end of three months, one finds that the skin has changed its character. It presents a moist, pinkish-white surface which is not unlike an anaemic mucus membrane. This change is constantly present in skin planted in the buccal cavity.

The first case operated by this method had the balloon hose led through the nostril on one side and through the incision in the canine fossa on the other. The latter side became infected and required further surgery, while the former side healed without incident. Another case required twelve weeks of packing and treatment because the entire skin was lost on the eighth day. A third case required five weeks of care because of infection and a fourth had a very troublesome osteitis in the floor of the anterior end of the antrum and the nose. Thirty-two cases have been discharged at the end of three weeks, or sooner, without incident.

The patient and the surgeon have everything to gain and nothing to lose by this technic. If the grafts are lost, the conditions and care are the same as follow a Denker operation. No packing is required and the after care is short and simple. A pleasing result is quickly obtained in a large per cent of cases.

CHILD WELFARE

LAFON JONES, M. D.
FLINT, MICH.

The title, "Child Welfare," may seem rather broad and inclusive, but for that reason, I like it. I do not think that we should attempt to subdivide it in our thoughts—for purposes of administration, we may have to approach infant feeding, prenatal care and the care of school children from somewhat different angles, but nevertheless it is one continuous problem and not a series of separate problems. Moreover, I think, the various aspects of this problem of child welfare need to be more closely correlated than they have heretofore been. We have been accustomed to speak of prenatal clinics, infant welfare clinics, of school inspection, as if each were an end in itself instead of a means to a common end.

That child welfare work is in itself an admirable thing, everyone will agree, but we will perhaps not all concur in an opinion as to its scope, the proper organization to undertake it and the methods to be used. There is a peculiar appeal in the actual suffering of a child, in the death of a baby, in

a crippled and deformed child, and this appeal is personal; our hearts are touched individually. As individuals however, we can do little to prevent recurrences of such an incident, nor should we. It is a public health problem. That one baby dies unnecessarily or a particular child is crippled, signifies little to society, but in the aggregate it becomes a matter of considerable importance, and one which must be handled by an organization of some sort.

Who should undertake child welfare work? From a historical standpoint it has been undertaken in its beginnings usually by a private organization, charitable or religious. We must admit that in many cases it has been exceedingly well done by such organizations, as far as they have gone. The difficulty has been that there has been no correlation. Each organization has undertaken what appealed most to its members, in many cases these organizations have been competitive and in no case have they covered the entire field. Multiplicity of organizations has meant duplication of equipment and increase of overhead, so that from the standpoint of economy alone, private initiative would have to be condemned. Theoretically, moreover, it is a state problem. The health of its children should be as much a matter of state concern as is their education. It has been, I believe, conclusively proven by experience, that the only approach to universal education, has been in those communities where education has been a function of the state. The state alone has had even moderate success in making education accessible to all children and it alone has authority to enforce attendance at school.

Believing the health of the children to be a community problem it would be logical for the community to accept the responsibility and supervise the care of its children. Also, logically, it would seem that the work should center in the Health Department. There are those who believe, and with some good reasons to support this belief, that health work in the schools should be a function of the Board of Education. If this work were an entity in itself, or the only child welfare activity in a community it might well be left to the school authorities, but as a part of a general scheme it should be organized along with other child welfare activities. The school organization will rarely have the equipment and facilities for caring for the cases found. As a matter of fact, the system has been tried out and has apparently been successful in both ways, but it is interesting to note that many cities

in which medical work in the schools was inaugurated under the Board of Education, have since found it advisable to change. Milwaukee, for instance, after ten years' trial of medical inspection organized by the schools, has transferred this work to the Health Department.

What should be the scope of child welfare work? In my opinion, the state should undertake everything for the physical welfare of the child that would not otherwise be done at all, or would not be well done. This includes preventive and curative medicine. As regards curative measures, the financial status of the parents should not always be the deciding factor as to whether the child should be cared for by the state. The statement of Davis and Warner regarding dispensaries might well apply here. They say, "Dispensaries established for public health purposes * * * * must be governed primarily by considerations of public health, which often have nothing to do with the finances of the patient, or of the medical profession either." It is a matter of fact that there are some children, badly in need of medical aid, who will not get it through their parents, although those parents are well able to pay for it. Theoretically, we say that these parents should take care of their children, practically, they do not. It is not fair that the children should be expected to pay the penalty of this lack of care on the part of their parents. We have, to be sure, in this state a law regarding neglected children, by which they may be made wards of the court and the treatment enforced, but this can only be successfully invoked in the most flagrant and obvious cases.

The scope of medical child welfare work should be, to attempt, by the education of the parent and of the child himself, by co-operation with the family physician where possible and by medical and surgical care where necessary, to bring the child to maturity with a healthy normal body. From the standpoint of society, physical education and development is of no less importance than mental education and development.

It is not to be supposed that the medical profession will unanimously agree with this idea. Many physicians look with disapproval on every step which they feel infringes upon the private practice of medicine, regardless of the good accomplished by that step. They will disapprove this regardless of the fact that we are attempting what private practice in several centuries has failed to accomplish. The very fact

that we do find among our children, such numbers of cripples, of undernourished and of physical subnormals, is all the argument needed for the state supervision of children's health. Much can be accomplished by purely educational devices, many parents need only to have their attention called to the need for care, but a large part of the care will never be secured except the state give it.

Medical supervision, state or private, should begin with the individual from the time of conception. There is no more important factor in infant morbidity and mortality than that group exerting its influence before and during birth. What little progress we have so far made in decreasing infant mortality has been chiefly in the direction of lessened mortality due to gastro intestinal disease. Still-births and deaths shortly after birth, due to prenatal causes, have scarcely been touched.

We may fairly group together still-births and deaths occurring in the first two weeks of life and say that they are collectively due to prenatal causes. Included in this group there were 244 deaths in Flint in 1920, a rate of about 81 per 1,000 births (including both live and still-births). Above the age of two weeks and under 1 year, there were 139 deaths, giving an infant death rate of 46 per 1,000 total births, when deaths under two weeks are excluded. It is obvious therefore, that our greatest opportunity as well as our greatest obligation in the care of infants lies in this group of deaths due to prenatal causes.

A comprehensive program then for child welfare work must start with the child before birth, oversee him through infancy, supervise his school life, and graduate him with a healthy normal body and the fundamentals of hygienic living so drilled into him that it is as much a part of his mental furniture as is his arithmetic. A child welfare program in a modern community includes prenatal care, infant welfare work, care of the pre-school and school child. It includes health education first of the parents and later of the child himself and of these two the first is incidental, the latter fundamental. Of these things, the health, care and education of the school child is the most important and the most exacting. The child is spending practically one-third of his time in the care of the community. We must provide a healthful environment, neutralize as far as possible the false teaching and wrong living in the home, protect the child as far as we may against infection and secure correction of those defects already acquired. It

is the most important because in the schools for the first time we can make contact with practically every child. And it is in the school that the community first accepts the responsibility for the care of the children, whether it recognizes that responsibility or not. It is in the school that we can begin and carry through the education of the child in health and right living.

The real problem in school work, from the public health standpoint, has always been to make health a live and interesting subject to the child, to make the child see the subject as something practical in its application to himself; and I think that it is only since personal health has been approached from the public health standpoint that any success has been achieved in that line. Those of you who attended school where physiology and hygiene were parts of the curriculum, will I think, agree with me that these text books were of as much practical value as the abstract idea of infinity in mathematics. We would read of the terrible results following the use of tobacco and then go around behind the barn and smoke cigarettes.

The mere fact of seeing the routine physical examinations made in the schools has had an important educational effect on the child, and the necessary discussions in the follow up work have made an impression on both child and parent.

Fresh air schools, nutrition classes, health plays and last but by no means least, the Modern Health Crusade of the National Anti-Tuberculosis Society have all combined to make health a live, interesting subject to the child, and public education in public health, will, I feel, do more toward making possible our ideal of an equal health opportunity for every child than any one other thing we can do.

All these things presuppose some plan, a definite order of doing things, a recognition of the extent of our responsibility, one or more physicians and dentists and, most important, an efficient nursing service. Given a well planned program of child welfare work, much more than half of its success will depend on your nurses. The nurse it is who makes the contact in the home, on her personality will depend largely the awakening of the child's interest in health. We must depend upon the nurse to actually vitalize the instructions of the physician, and without her enthusiasm and interest the work will be largely waste effort.

What do we hope to accomplish by child welfare work? The prevention of infant

deaths and the actual decrease in mortality statistics is without doubt the most spectacular thing we can do and yet I have a feeling that it is far from being the most important. Prevention of premature deaths is incidental, our real goal is to bring the survivors, as far as possible, to healthy maturity, able to take their part in the struggle of life, unhandicapped by poor health and with that real joy of being alive and able to fight that only real health can give.

DISCUSSION

DR. WM. DeKLEINE, Flint: Mr. Chairman, the routine physical examinations and instruction of school children relative to disease is an extremely important thing. I want to just give an illustration of what can be accomplished by this kind of work by citing an instance of what has been done in some of our schools in Flint. In one of our schools, in a foreign district, where there is nothing but foreign children in attendance, we have applied physical correction and educational work as far as it can be carried. For instance, in one or two rooms of this school we have given 100% dental correction, and have carried out the other physical corrections as far as possible; we have made the physical condition of the children as nearly perfect as can be made in the room.

In addition to that, in this school, and in some of the other schools, too, the principal has organized Welfare Week for educational purposes entirely, teaching the children to do their own inspection, inspecting themselves from day to day, which, I hardly need to say, is an extremely important thing for the school. In other words, the educational work relative to health is done by the children themselves. In one room in this school where the work has been carried as far as it possibly can be carried, not a single child has been absent this winter from school for illness, with one exception. In February every child in the room made his grade.

I believe that where physical correction and educational work is carried as far as it can be carried, and ought to be carried, in school, it is going to have a wide influence upon the education of the parents, as well as upon the health and morals of the children. It is a very important thing.

DR. WORTH ROSS, Detroit: I believe, with Dr. Jones, that this important subject of child welfare has to deal largely with the education of the parents, in the care of their normal children, rather than merely the treatment of the sick, as occasion arises. I believe that educational facilities should be free to all, and that we should urge, not only upon those who are ordinarily clinic patients, but upon the well-to-do, as well, the advantages of periodic examinations of the apparently well child. This will do a great deal towards the prevention of illness and defects among apparently normal children.

The experience of all of us is doubtless the same, that is, that the mortality of the first year, is largely in the first month of life; that, together with a large number of premature births and still-births, would certainly indicate to us that our efforts should be concentrated on the prenatal and the earliest weeks of life. With such concentration, I believe we may do a great deal towards lessening mortality. The earliest period of life is undoubtedly the proper time to confine the mother to a separate room for suggestions and instructions regarding the care; and it seems to go without saying that better prenatal conditions and instructions regarding care during the earliest period of life, together with the importance of breast feeding, will do much to reduce our mortality.

CARCINOMA OF THE LARGE BOWEL*

C. D. BROOKS, M. D.
DETROIT, MICH.

Cancer of the large bowel is a very serious condition, and from hospital records and other reliable statistics it would seem that it is on the increase. The incidence of cancer of the small bowel is very small, probably about one per cent, so that it can almost be ignored in consideration of intestinal neoplasms.

Cancer of the large bowel, however, is very frequent, especially is this true of cancers at the ileocecal junction and of the rectum. Inasmuch as cancers of the large intestine are often local in extent for a considerable period of time, it is highly important that the attending physician should be careful regarding his examination, as these growths are often easily detected. As elsewhere, it is usually in diagnosis that the unfortunate mistakes that come from negligence and carelessness in painstaking details which allows patients to die of this disease. It is the omission of the important step in the diagnostic regime whereby the questionable tumor is overlooked. It is due to the often very lightly looked upon symptoms of gas distention, constipation, and ill feeling, whether or not associated with blood in the stool. The high mortality incident upon such growths is not always due to the growths themselves, but to their late diagnosis, incomplete and improper treatment.

As a rule malignant growths of the large bowel give certain definite and characteristic symptoms which, if properly correlated at the first careful examination, and a diagnosis made, and operation advised early, could be removed. The records at Harper Hospital show that there were three hundred and six cases of cancer of the large bowel between January 1, 1919, and July 1, 1921. The high mortality is due to the late and neglected cases, or in those who have had palliative treatment instead of radical surgery. Palliation has no place in the treatment of suspected cancers of the bowel or in cancer elsewhere, unless it has been so decided by competent authority that such are absolutely beyond the help of surgery.

Cancers of the cecum, hepatic flexure and transverse colon are often accompanied by a grave secondary anemia, so that from the stand point of the blood picture a number of cases would seem to be inoperable. We are sure that a number of cases have been refused operation when they should have been

operated upon, had this fact been known. The anemia is in far greater proportion in this particular region of the colon than would attend the same extent of growth in the descending colon or rectum. This is a very important point and is another reason why the laboratory work that is done in a case should be correlated with clinical experience.

We have been considerably surprised in some of our cases that would seem to be absolutely hopeless, as far as their general appearance, their blood examination, their weakness, etc., to have entirely and rapidly recovered with very little operative shock after radical operation. In fact, we have come to believe that in this region of the colon, unless the mass seems to be absolutely and without question hopeless, and the patient's condition desperate, that they all should have an exploration to determine the resectability, and have the first stage of a two-step operation.

PATHOLOGY

The adeno-carcinoma is the common kind of cancer of the large bowel, and we have seen a number of colloid carcinomas, especially at the ileocecal junction. These colloid carcinomas, while often causing total or practically total bowel obstruction, associated with a high grade anemia, with infiltration of the bowel wall, and often secondary involvement of the parietal peritoneum, will often do extremely well if radical operations are performed.

The metastases in these cases are not nearly as frequent as in adeno-carcinoma or in the squamous-celled carcinoma, usually found at the anus or within the lower four inches of the intestinal canal. The adeno-carcinoma is the most common type found. Often times these carcinomatous ulcerations persist for a considerable time. At this time there is no involvement of the serosa and no metastasis. Some cases go from this condition of a simple carcinomatous ulceration to one of annular infiltration with obstruction under the eyes of the attendant. Often times on account of there being no obstructive symptoms and no macroscopic blood in the stool, the diagnosis of cancer is not considered. Whereas we believe that it is a patient's right that his attending physician should at least consider that his intestinal distress or other symptoms may be caused from such a beginning carcinoma, and should have a thorough examination. The squamous-celled types of the lower three or four inches of the lower bowel are often localized for considerable time, so in fact

*Read before the Shiawassee Medical Society, Oct. 12, 1921

is the adeno-carcinoma of the upper bowel. These former types as a rule would be easily felt by the examining finger and ought never to get beyond the operable state, excepting in cases that do not present themselves until late. In our experience we have seen a number of cases who have been treated for hemorrhoids when the most superficial examination would have revealed the case to be one of cancer. It is true that many of these cases are in the hands of quacks, osteopaths and healers of various kinds and often the physician does not see them until late, but there seems to be hardly any excuse, when patients present themselves that they should not have a careful rectal examination. These cancers of the squamous celled type metastasize early, both in the liver and in-
guinal glands, and delay is very dangerous.

DIAGNOSIS

There are certain symptoms which are usually present even in the small carcinomatous ulcers of the bowel. One of the first of these is loss of weight. It is important that the patient be weighed by the physician himself, and not take the patient's word that they have not lost weight, as a rule they would not be able to know within five or ten pounds, when such loss in four or five months would often mean that there was some serious constitutional discrasia present. I do not recall any case in my experience but there has been definite loss of weight with even the earliest cancer of the bowel.

INTESTINAL INDIGESTION

By this we mean distress at some time during the twenty-four hours which is more or less constant every day, usually associated with distention or gas, and relieved after the passage of such. In early cases we believe this to be due to spasm of the muscular fibers of the bowel, later with infiltration and the increase in obstruction of the lumen of the gut itself, causing spasm or colic in the hollow viscus. Such symptoms are usually present and are more or less constant, often times not complained of by the patient, but will be elicited by careful history taking. The appetite is often impaired, and there is a loss of appetite for certain foods.

Constipation and diarrhoea may be present and alternate, sometimes with constipation for a week or two, followed by diarrhoea for a period. Cases presenting this type of symptoms call for careful and complete examination of this tract.

PAIN

In our experience, pain has not been an early symptom in this disease, with the ex-

ception of where the growth is situated low in the rectum in the fixed portion. We have been surprised that many large growths, causing practically total obstruction have given very little pain, so that pain really has very little part in the history of this disease, except when considerable ulceration has taken place.

BLEEDING

Bleeding is usually present in the cases when they present themselves for examination. Sometimes this blood is present for a few days at a time, again several days will pass without bleeding being detected. This depends a good deal on whether the patient is constipated and whether they are taking oil or some other bland laxative. Bleeding may be only in small amounts and of course depends upon the ulceration in the growth and would only be found when erosion in the ulceration had taken place, so that we should not be satisfied with one or two examinations, but every stool for at least a week or ten days should be carefully examined for occult blood. Bleeding of course will take place more frequently in the cancers of the lower rectum and sigmoid than from cancers of the ascending or transverse colon, but inasmuch as the lower bowel is easier for examination the symptom should not be allowed to go without cancer being considered a possible cause.

OBSTRUCTION

Obstruction is a late symptom of carcinoma of the bowel, and as a rule cases are well advanced when obstruction has occurred. This is due to the infiltration of the cancer growths which extend in every direction, more toward the lumen than to the serosa. This is very fortunate, as cases may be resectable which have total obstruction.

It is only by careful history taking and thorough examination, which can be done by the average physician, that an early diagnosis can be made. If the patient has an obstruction, we should suspect malignancy. At times only perhaps two of the above symptoms will be present, still a diagnosis must be made early. By careful palpation many of these growths can be found. It has been our experience in a certain number of cases that we could not feel any mass at the first examination, but after a day or two rest in bed on a light diet and the patient's confidence in the physician has been established, there is a greater relaxation in the abdominal muscles. I have often been able to feel masses which have at first gone unnoticed, so that our patients should be palpated very carefully at least four or five times. A careful blood examination of course is indicated

here, as in every case for diagnosis. A hemoglobin somewhat low with slight secondary anemia should make us very suspicious that the diagnosis may be malignancy. Later there is considerable increase of the polymorphnuclear leucocytes. This we believe is due to secondary infection in the cancer growth. A rectal examination first with the finger which should be well lubricated and warm. The rectum carefully dilated in a way not to cause spasm or undue pain. This is a much neglected part of the examination and should be one of the first steps to be taken. This is followed by a careful proctoscopic examination. It would seem to us electric lighted instruments are best. The position of the patient either in the Syms position or the knee chest position, are usually best for such examinations. A small specimen may be taken for examination, but we advise against this unless operation immediately follows. If done the site should be cauterized with a cautery.

X-RAY EXAMINATION

The X-Ray is a very important factor not only in detecting obstruction but it will give us, in the hands of the trained X-Ray diagnostician, a fairly good idea of whether the obstruction, if one be present, be due to a malignant neoplasm or otherwise. Inasmuch as this can be done without discomfort to the patient it should never be neglected. The patient should have a regular 48-hour series of the gastro intestinal tract. A few days before, or later, which ever seems preferable, the patient should also have a barium enema. It is not sufficient that such X-Ray diagnosis should be made from fluroscopic examination alone, but plates should be made for careful study. Sometimes patients have had X-Ray examinations made by incompetent diagnosticians, and if there is any question in the diagnosis, a second X-Ray series should be taken. If we have a definite plan in our complete and thorough examinations, with every case presenting one or more of the above symptoms, these cases would hardly ever get beyond the operable stage, unless they were past this stage when first examined.

TREATMENT

There are no means that we are aware of today, for the treatment of cancer of the bowel excepting radical operation, in operable cases. As stated before, there are probably many cases who have been refused operation who could have been successfully operated upon if the proper method had been

employed and the personnel of the attending staff properly equipped.

The type of operation will depend almost entirely upon the situation and extent of growth of the cancer. It is very obvious that here, as in other surgical operations, that patients should be brought to the best possible condition before being subjected to operation. It is never advisable to operate on such cases for the radical removal of these tumors in an emergency, and I would respectfully call your attention to the fact that the mortality attending upon such cases is not due so much to the extent of the cancer as upon the way they are handled. When such patients are seen with obstruction, total or partial, they are never fit for operation without a preliminary colostomy. We are quite convinced that the two-stage operation in cancers of the colon and rectum reduce the operative mortality from thirty to forty per cent to less than five per cent. Many of these patients should have blood transfusions, and it has been our experience that they do not need a large amount of blood, oftentimes 200 or 300 cc's will act as well or even better than a larger quantity. Some of these patients do extremely well upon a single transfusion, while others not as good, and would be better after having two or more. We think that it is well to wait a few days before operation is performed after the transfusions.

One of the most important features regarding the doing of a preliminary colostomy before attempting the resection of most cancers of the bowel is not only to get rid of the fecal current which infests the already infected area, but the patient is able to take nourishment in large quantities, and I believe that it is the most important factor in advising preliminary colostomy. We have seen patients who came to the hospital with a dry and parched tongue, emaciated, and all of the other symptoms of very seriously sick patients with acidosis from starvation, improve so that they could hardly be recognized as the same patient after ten days or two weeks following a proper colostomy, or enterectomy and being able thereby to take large quantities of fluids. We have found that the studies of the blood, both cell count and the chemistry of blood as noted by the blood nitrogen, are extremely important and radical operations should never be performed until these conditions are fairly favorable. Both conditions of high blood nitrogen content and blood counts readily improve upon forced feeding and blood transfusion following

colostomy. We believe by the use of the above methods that patients who are in bad condition and appear to be absolutely inoperable will assume such good condition that they will be good risks. From two to three weeks is, as a rule, long enough, and there is no reason for waiting longer before proceeding with the second stage of radical operation.

The type of operation will depend upon the location and extent of the disease. When possible, we prefer to do an end-to-end anastomosis and prefer when possible to use a large rubber tube in resections of rectum and sigmoid when such can be employed. Cancers of the lower rectum that can be removed by the rectal or vaginal route or a combination of such are better so removed. A few cases are better removed by the Kraske operation, i. e., the removal of sacrum and coccyx. In a few cases we have tried a preliminary lateral anastomosis between the cecum and sigmoid or descending colon in cases of obstruction of the transverse colon. This lateral anastomosis may take the place of a preliminary colostomy. After such anastomosis a rectal tube may be passed from the rectum through the anastomoccal opening, so that the patient is immediately relieved of flatus and nutrition can be begun.

In a few weeks after the lateral anastomosis is made when the growths are in the transverse or hepatic exure, we advise the resection of the growth. This makes the operation very simple as the patient is able to take nourishment the day following the operation as the anastomosis which was made is the first step of the operation, is permanent, and the cut ends of the resected portion of the bowel are simply inverted.

In cancer of the descending colon and sigmoid, the Mikulicz operation may be performed, where the involved section of the bowel is brought outside of the skin and in twenty-four or thirty-six hours a colostomy is made and a few days later the growth is removed with a cautery, the loops of intestine having been approximated at the first step of the operation, and after removing the growth by the cautery we have the distal and proximal ends of the gut like a double barreled gun projecting beyond the skin. We then place the clamp, which should be about one-quarter inch wide, on this septa and push the gut downward. The clamp is left on for about forty-eight hours, after which the bowel content will escape through the anastomosis made by the clamp, and we simply have to cover over the upper surface of the bowel by a few Lembert sutures and close the wound.

The type of operation will depend oftentimes upon the particular skill of the surgeon, and we oftentimes need to devise a technic for the particular case at hand. In women many cancers of the lower bowel can be easily removed by the vagino-rectal route.

There will be a number of cases of cancer of the lower bowel that will be so extensive that it will be impossible to restore the rectum, and if these cases are to have a radical operation, they will need to have a permanent colostomy. This should be explained to patients beforehand, so that they will understand, and chose between a permanent colostomy or an unsuccessful and palliative operation. At times the rectum can be brought out though the wound in the sacral region, and patients are fairly comfortable, but this is not as advisable as in the inguinal region.

These patients are all desperately in need of fluids, and the withholding of them either by method of giving them intravenously or interstitially will often turn the tide against them. It is highly essential that these patients should have saline transfusion, either intravenously or interstitially, during operations for cancer bowel resection. We have also found it advisable to give a second small dose of morphine during the operation. We always use a preliminary dose, and it seems to us that the withholding of the transfusion during the operation has often been a deciding factor against the patient. I do not believe that they should wait until they are in shock, but that the transfusion should be begun as soon as the operation is begun, and should be given very slowly, much harm comes from flooding into the tissues and circulation large quantities of fluids suddenly. It is hardly necessary to say that the highest possible skill must be used in the surgery of these cases, and that patients must be in as good condition as possible. Team work is absolutely essential, and everything that might possibly be used in operation of such cases should be ready to use. Patients should be kept warm and every drop of blood saved for their tissues.

If great care is taken to make an early diagnosis, and the proper type of operation in each individual case be used, with the early diagnosis and the proper kind of radical surgery, the mortality and morbidity of the cancer of the bowel will be greatly reduced.

Inasmuch as about twenty-five per cent of cases are not seen by the physician until they are inoperable, this makes it necessary

for every physician to always bear in mind the proper education on the cancer question. The mortality of cancer of the bowel is more than 110,000 annually.

910 DAVID WHITNEY BLDG.

PYLORIC STENOSIS AND PYLORO-SPASM OF INFANCY WITH ES- PECIAL REFERENCE TO MEDICAL TREATMENT

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Recent years have witnessed a vast accumulation of literature on the subject of pyloric stenosis, and pylorospasm, covering the fields of etiology, relationship of the two conditions, diagnosis and treatment. To dwell on more than a single phase of this extensive subject would obviously be beyond the time limit allotted to this paper. It would be of no small interest to review the various hypotheses as to the nature of these important conditions, for the relationship of pylorospasm to pyloric stenosis is of particular moment. Many observers hold that the condition of pyloric stenosis is not necessarily a congenital one. Rachford⁽¹⁾ prefers to call it "infantile" rather than "congenital" pyloric stenosis. Reuss⁽²⁾ makes the assertion that obstructive vomiting should properly be classified as a condition of infancy rather than of the limited period defined as of "the newborn." A wide spread tendency is to look upon pyloric stenosis as a functional hypertrophy due to repeated spasm of the muscle fibres of the pylorus. Holt⁽³⁾ maintains strongly in his most admirable article on pylorospasm and pyloric stenosis that the hypertrophy precedes the spasm and cites the occurrence of pyloric hypertrophy in a 7 months fetus in evidence. In the frequently cited case of Rachford, a Rammstedt operation relieved a definitely hypertrophic pylorus at 10 weeks. The infant died a thymus death at 7½ months and the autopsy by Wooley revealed a patulous pylorus with complete disappearance of the hypertrophy, evidencing the relief not only of the spasm, but of the overgrowth as well on the removal of the pyloric irritation. Other autopsies, referred to by Morse⁽⁴⁾ showed a definitely remaining hypertrophy following the older gastro-enterostomy operation.

Where pylorospasm ends, so to speak, and pyloric stenosis begins, and where medical treatment is indicated and where surgical, has been a matter of interesting controversy. The older school of pediatricians, notably Holt, Kerley⁽⁵⁾ and Morse stand strongly for

the early surgical intervention in stenosis cases. Another attitude is assumed by an active school of those who hold that the condition of obstructive vomiting is essentially a medical condition, that resort to surgical procedure should follow only when medical measures have proven definitely without avail. To this latter school a vast support has been given by the introduction into therapeutics, of the thick gruel feedings of Sauer⁽⁶⁾ of Langley Porter⁽⁷⁾ and of Mixsell.⁽⁸⁻⁹⁾

That actual hypertrophic pyloric stenosis occurs is amply proven by an abundance of surgical and autopsy material and no one who has seen ante or post mortem, pyloric rings almost cartilaginous in consistency, and patulous to the degree of scarcely admitting a straw, would assume to state the non-existence of surgical pyloric stenosis. It is the writer's firm conviction, however, based on the observation of a rather large clinical material during a period of 15 years, that stenosis of surgical degree is the exceptional occurrence and that the vast majority of obstructive vomitings of early infancy can be made to yield to non-surgical treatment. Which cases, then, become surgical? In a word, those which fail to yield to medical handling. Certainly no gross generalization is permissible. The individual case must be judged according to its own indications. If in spite of the correct application of the measures to be described, the vomiting is not arrested, and the infant loses further in weight and strength, the surgeon is forthwith to be consulted. Kerley states emphatically that whenever a pyloric tumor is palpable, operation should be performed. In many grave instances, however, the pyloric tumor cannot be felt—often perhaps because of the position of the pylorus behind the edge of the liver. Surgical evidence is to the effect that the tumor frequently palpable through the abdominal wall is not present on opening the abdomen. And, in cases responding to medical treatment, tumor may be felt and peristalsis may be visible weeks after the vomiting has ceased and the child is gaining well. The tumor may be the result of the mere spastic contraction of the circular muscular fibres of the pylorus. As determining actual stenosis, the absence of fecal matter in the stools, i. e. hunger stools, the slow emptying of the stomach as evidenced by pumping the contents at the end of four hours, and the failure of thick gruel feedings are of chief value. The X-ray reveals nothing that careful clinical observation will not show, but is often a useful adju-

vant in diagnosis. The method of Strauss⁽¹⁰⁾ is said to be of especial value. Sauer points out that the pylorus is much more patulous following a gruel bismuth meal than following a mixture of milk and bismuth. The use of the duodenal tube for diagnosis has been recommended by Howell⁽¹¹⁾ and should be useful in accustomed hands.

It is interesting to note the observations of Langley Porter, who, in the *Arch. of Ped.* July 1919, reviews his 15 years of experience with hypertrophic stenosis. He is a warm advocate of the Rammstedt, or what he prefers to call the Fredet method of surgical treatment, and from 1915 to 1919 was responsible for the performance of 26 such operations with 25 recoveries. "There is no doubt," he says, "that this simple incision is a most brilliant achievement and one to which any pediatricist may submit a child with pyloric stenosis without fear of unhappy outcome. Even when children have been neglected for a long period of time there is little chance for a catastrophe. Nevertheless, the last 10 patients that I have seen (in a period of 6 months), I have been treating dietically with uniform success, with a modification of the method of Helmholtz and Sauer." McLanahan⁽¹²⁾ likewise reports successful results with a series of cases treated with thick gruels, as have previously Sauer, and Mixsell. Since the publication of Sauer's work, the use of thick gruel feedings in vomiting cases has been widely adopted by pediatricians in general, and for the past two years it has been the writer's practice to employ thick gruel feedings in both acute and chronic vomiting of infancy, including both obstructive vomiting and those cases classed as "acidosis," with practically uniform results. This rather extensive series has included cases of recently born breast-fed babies, showing projectile vomiting, visible peristalsis, hunger stools, dehydration, loss of weight and slow emptying through the pylorus. The sign of palpable tumor has been conspicuously lacking in the majority of my cases and, inasmuch as none of the cases were required to come to operation, that they were actually stenotic, cannot with positive certainty be stated. Based on clinical symptomatology and analogy with known hypertrophic cases, however, no doubt exists in my own mind that the diagnosis of pyloric stenosis was justified wherever made. Of the large number of vomiting cases treated with thick gruels, 5 were diagnosed as stenosis and 14 as pylorospasm.

The rationale of thick gruel feeding is several fold. "Starch in solution acts as a protective colloid and in this way prevents the formation of hard casein curds" (Mixsell). The thick gruel forms in the stomach a colloidal mass, mechanically protecting the irritated pyloric mucosa. By virtue of its mere thickness, it is more readily retained and less readily rejected than thinner fluids. The gruel must be definitely thick to prove effective. Some pediatricists combine both a maltose dextrin, and lactose as well as dextrose with the cereal on the principle that a polycarbohydrate mixture is frequently better utilized by the organism than a single sugar. There is in this way a slow gradual absorption of sugars by the organism—first of the maltose, then of the dextrose, more slowly is the dextrin converted to sugar and finally the starch. In all of these cases, accompanying the vomiting, constipation, dehydration and scanty urine, an element of acidosis must be present, (Porter, Schloss⁽¹³⁾ Sauer). The effect of the action of high carbohydrate feeding here is obvious. Without going into the details of the methods employed by others, which are readily obtainable from the literature, the writer presents herewith his own method of treatment.

Breast milk has been considered a *sine qua non* in the feeding of hypertrophic and spastic vomiting cases, and except in so far as it may be replaced by thick gruel its use should be insisted upon. The employment of breast milk in the preparation of the gruel as recommended by Sauer, I have not found necessary. It is a common error to regard vomiting in the new born as the result of indigestibility of the mother's milk and weaning is correspondingly undertaken. This step results in a precipitating of the further downward course of the baby. Except in so far as some secondary digestive disturbance may have occurred in the attempt to curb the vomiting or faulty feeding technic has been instituted, the vomiting is merely the result of a mechanical cause. No betterment need be expected from placing the baby upon a cow's milk dilution. Only a fraction of the baby's food is retained in the stomach and a much reduced amount passes through the pylorus for intestinal digestion and assimilation. Therefore, it is of the utmost importance that this relatively small amount of food be of the sort best adapted to the infant's nutritional needs and capacities. This food, beyond argument, is the food nature has intended for its use—mothers' milk. In

any instance of vomiting at the breast a mechanical cause for the vomiting must be eliminated before weaning is permitted.

In cases of obstructive vomiting it is frequently necessary to replace but one or two—oftener two—of the breast feedings with thick cereal. Sometimes it is merely necessary to introduce a tablespoonful of thick gruel twice daily, in addition to the regular breast feedings, to control a moderate pylorospasm. In the more severe stenotic cases, however, it is frequently necessary to place the infant completely on the thick gruel feedings.

The gruel is made up of diluted skimmed milk, thickened with farina, with the addition of dextrose. With low dextrose tolerance, a maltose dextrin preparation may be added in whole or in part. Even where the dextrose is well tolerated and gain in weight has ceased, impetus to the weight intake may be given by the addition of a maltose dextrin preparation. On account of the low tolerance for fats in vomiting infants, the milk employed should be skimmed. This, then, is further diluted with water. More water than skimmed milk is used by Sauer, but a half and half mixture has been uniformly successful in the writer's hands. The formula I employ is as follows:

Skimmed milk	10 oz.
Water	10 oz.
Farina	6 tbsp. (level)
Dextrose	4 " "

This is placed in a double boiler and boiled for one hour. Weakening or strengthening the dilution or the addition of maltose dextrin may be made according to indications, although I have rarely found variation from the above formula necessary. Where farina is not well tolerated, Porter finds indication for rice flour. In a case seen during the past winter, that of an apparently moribund baby of four weeks, kept alive by intraperitoneal saline and glucose injections, the employment of a thick gruel made up with undiluted skimmed milk resulted in practically immediate cessation of vomiting and prompt and complete recovery. In any event the gruel must be thick. Thin mixtures—cereal waters—are useless. The gruel must be kept hot during the administration. It may be administered with a spoon, but merely slitting the nipple will usually permit the child to use the bottle. I usually begin with the substitution of two breast feedings with two gruel feedings, of one or two ounces each. They are almost invariably readily taken by the infant. The quantity may be increased gradually in ac-

cordance with the infants needs, to 3, 4, 5 or 6 oz., and some infants take, in all, as much as 24 oz. per day. Generally, by the time this quantity is reached, however, the condition has improved and simple milk mixtures have been gradually substituted for the gruel. In all instances a minimum feeding interval of 3 hours is employed, and 3½ hours preferred.

The immediate benefit of the employment of the thickened gruel is striking. It is almost invariably retained to a considerable if not a total degree from the outset. The infant obviously becomes better satisfied at once. It improves in appearance and as Porter points out, in the turgor of the flesh, and weight loss is forthwith arrested. The high carbohydrate content, no doubt, brings about an increased water retention in the tissues—the immediate effect is the overcoming of the dehydration and its consequences, probably in first degree the element of acidosis—and gain in weight ensues forthwith and often rapidly.

With the use of the thick gruels, stomach lavage, a most valuable adjunct in the treatment of obstructive vomiting, finds lessened indication. I have never, even before the use of the gruel feedings, found it necessary to lavage as frequently as before each feeding or even twice daily, as advocated by some. A daily lavage in severe cases and 2 or 3 times a week in less severe ones have met the indication. In my more recent cases, I have found it rarely necessary to employ lavage at all. It has likewise been possible to discontinue the use of the 1 miligram of novocain previously used before each feeding—although I had never been actually convinced of its effectiveness. I have not found it necessary to employ the atropine treatment recommended by Haas⁽¹⁴⁾ although I have seen several cases in which atropine has been employed—apparently with indifferent results.

This paper is not to be taken as a plea for the non-surgical treatment of all cases of pyloric stenosis. Certainly, instances must continue to occur which will demand surgical intervention. I have found occasion to recommend operation in but two instances in recent years. The suggestion in one instance resulted in advice being sought elsewhere, non-surgical treatment was continued and the child died. The other case when first seen was in an advanced stage and died before surgical intervention could be brought about. One other advanced case was about to be operated upon when further medical treatment was urged by the writer with most happy

result. Pyloric stenosis and particularly pylorospasm are of routine occurrence in pediatrics practice and, no doubt, occur frequently in general practice. Granted an early diagnosis, the prognosis on correct medical treatment is excellent, and the preponderant majority will yield early and brilliant results on the employment of thick gruel feedings.

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DISCUSSION

DR. B. KAY, Detroit: Dr. Levy has presented to you a subject which I think is worthy of very grave consideration. There is nothing which is going to call upon your diagnostic ingenuity more than does that of when to operate or when to carry on medical treatment in these cases of gastric obstruction in children.

Observers have told us that three things should always be present before we diagnose a case of pyloric stenosis, that is, the visible peristalsis and palpable tumor and the long delayed emptying of the stomach. I think a fourth factor should be added to it, one which fits in very well with what Dr. Levy has told us. I think the diagnosis should not be made until you have tried semi-solid food plus atropin. You will be amazed how quickly vomiting will stop upon the administration of semi-solid foods. I think you have a very worthy factor in a diagnostic way in addition to a wonderful bit of treatment. Dr. Levy told you of the tube as a diagnostic feature. I think that deserves a few words from those who have tried it. This is very important.

The pylorus of an infant demands a 21 French catheter. If upon passing your tube you are not able to pass it through the pylorus after a reasonable length of time—you will be able to tell when it is through very readily because you get a fine spurt from your tube of stomach contents. You pass it further and you will get a second spurt, much greater than the first, and you can readily tell whether your tube is in the pylorus. Where you have spasm, the spasm will not last a long time—and will allow your tube to go through. A great many of you men will use, if you are not now using, semi-solid food. We sometimes experience difficulty particularly with children very young.

I employ a Hygeia nipple. It holds perhaps 15 ounces. Cut a slit through the top of the nipple, and then with a glass rod or spoon first put the tip into the baby's mouth and force it in. It gets the action of sucking along with the feeding.

Also, I concur very strongly with what Dr. Levy said about the addition of dextrose or sugar in some form. It is well tolerated by children and adds greatly to the nutrition of the child, and it is

the thing they demand and are much in need of by the time you find them.

The question is whether we will operate or treat medically. How long shall we wait? If a child comes to us suffering the ravages of disease, I don't think you will wait over 48 hours. In that length of time you can determine whether that child can take care of its food or whether it cannot. Dr. Levy says they react quickly to it. If you have a child who has just started with this trouble I believe a week's time can be allowed.

DR. C. E. VREELAND, Detroit: A good many years ago Dr. Grulee, in using the silk thread in an infant case was able to stretch out the strictures in the oesophagus in a baby 18 months of age. So that in the young babies, at Dr. Grulee's suggestion, a silk thread was attempted. It took a great deal of time. A good many times a silk thread could not be retained in the stomach. A few times when it did go through, a catheter was passed over by tying a fine piano wire to the silk thread and drawing it over the thread in that way. By numerous attempts, a catheter of the size the doctor has stated could be put through.

But Dr. Einhorn, a few years ago, attempted to straighten out the strictures of the pylorus over a silk thread and the wire and gave it up in a very short time as extremely hazardous. If extremely hazardous in a grown individual, it is extremely so with the delicate tissues of a baby. So that, as far as I know, Dr. Grulee has never attempted to follow that out.

DR. W. ROSS, Detroit: I believe that all physicians having the care of young babies should be on the lookout for it.

Undoubtedly a good deal of mortality results from killing a baby prematurely because of the failure to do well on the mother's milk, and the child is given a succession of foods with each of them going down until the baby rapidly succumbs to mal-nutrition. The condition should be suspected in a breast fed baby who may have done well for a time. Then a condition of vomiting and becoming rapidly worse. Especially I believe is a diagnostic point the projection of vomited food. The projection of food just previous to the next feeding. I believe if the stomach has not emptied itself in time it is very good evidence of trouble at the pylorus.

The use of thick gruels is extremely important together with the mother's milk. I find it very beneficial. I employ ordinary cane sugar in many cases with good effect. Possibly because it is sweeter and infants will take it better than some other forms of sugar. It is quite an important factor, I believe, to keep the mother's lactation up as long as possible, because babies even come to us in a state of mal-nutrition.

I had recently a case of pylorospasm in a case nine months old, who responded to the administration only of thick gruels.

DR. F. B. MINER, Flint: I had a case of a seven and a half months' baby which died on the fourth day from pylorospasm. Upon examination, there was a very thick fibrous band which, on cutting, was very similar to the cervical tissues. I would like to ask Dr. Levy what he knows about these cases following the families. Whether he has had experience of more than one case in the same family, of congenital stricture of the pylorus.

DR. W. M. DONALD, Detroit: Dr. Miner has just asked a question. I would like to repeat a conversation I had with him last night.

Some years ago it was my fortune to run across a family whose history I reported a number of years ago at a meeting of the State Medical Society. I was able to demonstrate the spasm from one of the members of the family. An American family, perfectly normal and healthy. Both sides of the family normal. The case I obtained was a case of typical pylorospasm.

The post mortem revealed marked spasm as well as marked hypertrophy of the pyloric orifice. That case was shown at the state society. I was able to secure three other specimens who showed at the time very similar cases. The inter-

esting part of the case—quite interesting part of the history is this: This perfectly normal father and mother had six children. Of the six, four of them had pyloric hypertrophy, I assume. The other three had not been posted. They were attended by competent physicians. One was diagnosed as a case of pylorospasm. I think it was accurately diagnosed.

In my case, the fourth case, there was very marked pain. That I think might be added to the symptoms, because in my judgment those cases show exceedingly marked pain, as evidenced by the sharp cry of pain. I looked into the subject thoroughly at that time. I saw this exceedingly interesting history. I found a number of them reported these cases. The interesting part of this history was this: These people who had had the children were perfectly healthy. The first four children died of pylorospasm. The two following children lived comfortably. One showed a tendency toward pylorospasm for a few weeks after birth. Four deaths and two living yet.

DR. G. H. WOOD, Detroit: I would like to ask Dr. Levy if he has had any experience in attempting to relieve the pylorospasm with benzyl-benzoate.

DR. KEMPTON, Saginaw: I am very much interested in the trend of Dr. Levy's paper and the discussion. I learned during my service with Dr. Cowie that he believes, with Dr. Levy, a great majority, practically all these cases, can be handled medically. While we don't see a large number in our university clinic, all of those we do see are followed very closely. With very few exceptions, we get away with the medical treatment.

I was very much interested in his remarks regarding breast milk. I think it is true that a lot of us feel, when we get a case of pyloric obstruction, that you must wean the baby, that the baby cannot tolerate breast milk. I think that is entirely wrong. At least it can handle some breast milk. I remember a case last year which we handled very nicely. The mother had a great abundance of milk. For several weeks she expressed the milk from the glands. By starting in with dilution of the breast milk and feeding it to the baby with a bottle and gradually increasing it, the baby recovered.

DR. DAVID J. LEVY, Detroit (Closing): In regard to the atropin treatment in pyloric spasm and pyloric stenosis, as I have stated in my paper, I have had personally little experience, but I have seen a great deal of that in the cases of others. I want to cite a recent instance of a child treated with atropin whose predominant symptom was intense gastric discomfort, due to flatulence. The reasoning employed in the case was that the intensive dosage of atropin had lessened the amount of hydrochloric acid in the baby's stomach, permitting increased fermentation of the food. The rationale of atropin treatment is perfectly evident. I do not believe it is a necessary treatment. I believe where used intensively the result that occurred in the case I just cited is likely to occur.

The time to operate is not at a fixed interval of hours or days. The time to operate is the moment it becomes definitely certain that the child is not going to respond to medical treatment. I personally wait until I am fully convinced that medical treatment cannot possibly be of avail. Most of the cases that are surgical are recognized by the clinical course which the child pursues on medical treatment.

The figures given by Holt and the work done in the baby's hospital by Downes show that the cases that have gone over four weeks and then come for operation stand it more poorly than the babies operated on before the four weeks have passed.

So far as the use of cane sugar is concerned, babies tolerate that very well, but they take care of ordinary sugar, dextrose and glucose, even more readily than they do saccharose.

In regard to Dr. Miner's question, of course Dr. Donald answered it with the case he cites. There is probably in the majority of cases a neuropathic predisposition. Some of the notable work on this

subject was done by Dr. Berendt of Budapest, and the material was furnished largely by his own two babies, they having shown this obstructive vomiting.

In regard to the gruel referred to by Dr. Ross, I am quite sure it is here of immense value. The gruel is retained better than any other food.

Regarding Dr. Wood's inquiry about benzyl-benzoate, it has been used by some people. There is reference to the use of it in a recent number of American Journal of the Medical Sciences.

I am glad Dr. Kempton emphasizes the virtue of breast milk. It is a grievous mistake, for which the baby pays a tremendous price, where one wrongly interprets these symptoms as due merely to a mechanical cause.

ETHMOID SUPPURATION

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DETROIT, MICH.

The symptoms of Ethmoid Suppuration combined, as it so often is with infection of all or some of the neighboring sinuses, present a varied picture. It is necessary to eliminate the combined infections, ethmoid, maxillary, frontal or sphenoid-ethmoid before it is possible to determine which symptoms are attributable to the ethmoid involvement alone. An ethmoid suppuration with more or less free drainage may give rise to few symptoms, otherwise than the characteristic morning accumulation of thick tenacious muco-pus in the naso-pharynx and scab formation in the nasal cavity. The effort to dislodge this secretion produces the gagging and oftentimes the emesis which is so disagreeable to the patient, and if persistent is liable to affect his general nutrition and his efficiency. There is nothing more disagreeable than the hawking and spitting which is necessary to clear the nose and naso-pharynx in order that he may be able to carry on his days work. In case, however, we are dealing with an empyema with little drainage, headache located over the bridge of the nose and vertex—becomes a prominent symptom, and is often of such severity as to tax the ingenuity of the physician to control it. Interference with the sense of smell is frequent, and is due either to deflection of the respiratory air current or to degeneration of the end filaments of the olfactory nerve. General and referred symptoms are those of any focal infection and are dealt with under the head of complications.

DIAGNOSIS

In examination of the nasal cavities to determine the presence of an ethmoid empyema we are at the very onset brought

face to face with a real difficulty. This is the problem of an accurate diagnosis as to the exact locality and extent of the infected areas. Whether this involvement affects all or part of the posterior or anterior cells, or whether we have to deal with a combined ethmoid antrum, a frontal ethmoid or a sphenoid ethmoid infection, so that it behoves us to make an exceptionally careful investigation for the purpose of ruling out one by one all the possible combination infections, thereby saving the patient great disappointment and the loss of valuable time. Empyema of the maxillary antrum can be ruled out or demonstrated by puncture and irrigation, and the frontal sinuses by catheterization and lavage.

By direct examination with the long speculum the middle fossa is brought into view and the presence of pus, crust formation or polypoid degeneration sought.

There are some who claim that not only can a diagnosis of ethmoid disease be made by transillumination, but that it is possible to differentiate between anterior and posterior involvement. I have never been able to do this to my own satisfaction.

In the X-ray we possess the means not only to diagnose a pathological process, but by proper exposure to locate the particular cells of the labyrinth which may be affected, and their location.

In the subsequent surgical treatment the ability to separate the diseased areas of the labyrinth from the healthy is of the utmost importance for a satisfactory outcome of our endeavors. Those of us who are not equipped with an X-ray outfit or are unable to properly interpret an X-ray plate, must depend upon the written report of the roentgenologist.

Treatment of chronic empyema of the ethmoid labyrinth, which may well be called the bugbear of the rhinologist, calls for our best judgment and discrimination. In the early days of rhinology, treatment consisted largely in the application of various medicated sprays, and the insufflation of powders. Following this came the pernicious practice of using that great infection spreader the nasal douche. Next the turbinate bodies were attacked and ruthlessly sacrificed to re-establish the respiratory pathways. Surgical procedures advanced and became more radical until as in many other branches of surgery they have become too radical. In the first place the treatment of ethmoid empyema should be conservative to the utmost limit and the surgical measures when instituted should

be undertaken only after a careful determination as to the extent and location of the involvement, and then be carried out with the least possible destruction, not only of the labyrinth, but of the nasal mucous membrane and lateral wall structures.

Now we will consider that we have a bona-fide case of labyrinth empyema. Is it good surgery to enter that nasal cavity, remove the whole middle turbinate and ruthlessly attack the ethmoid labyrinth, leaving exposed in the lateral wall of the nose a large area of tissue of low vitality and poor powers of repair and subject to the drying effect of a dust and bacteria laden air? It is not good surgery. If we will remember that it is not necessary or desirable to attempt always to do a complete ethmoid extirpation at one sitting or in one week, we will often be able to drain the offending area which is the one reason for which we operate without the useless and criminal destruction of structures which are not pathologic, and which are necessary for a healthy and properly functioning nasal cavity. I believe that all will agree that it is often impossible to reach all ethmoid cells by the intra-nasal route, no matter how radical the operative procedure, and if one or a group of infected cells remain the original condition has not been improved.

What have we produced? A large denuded area of suppuration in the lateral nasal wall. Cells of the labyrinth, which were before healthy have been broken into and destroyed, so that instead of possibly isolated infected cells which might have under favorable conditions gone on to recovery, we have the complete labyrinth broken down and suppurating. Nature's healing attempt must be by cicatrization, bands of tissue form from one shattered cell to another and between these bands form cavities filled with pus and walled in by cicatricial tissue with no possible chance for drainage, and subsequent operations on such a case are much more difficult and dangerous.

Let us not forget that the main cause of poor drainage and hence intractable sinus disease does not always originally lie in the lateral wall of the nose, but in deviations and malformations of the nasal septum, producing retention and contamination of secretion, and secondary hyperemia, hyperplasia and true hypertrophy of the lateral wall structures. The presence of polypi in the middle fossa is no indication for opening the labyrinth. Polypi should be carefully removed by snare, and the anterior

end of the middle turbinate if found obstructive, removed or fractured, as conditions may indicate. Now by conservative methods having obtained a free nasal cavity by attention to the septum, the removal of the polyp, the amputation or fracture of the middle turbinate, we should employ such methods as skinking, suction, and the application of medicinal remedies to reduce inflammation before doing anything more radical. Owing to the chronicity of this condition, we should not be too easily discouraged by the length of time required to produce results, a treatment extending over several months is to be expected. In case we decide that radical measures are indicated—the method chosen should conform with the exact condition present and should

be carried out with the least possible destruction of healthy tissue.

Some will favor the more conservative method of fracturing the middle turbinate or amputation of the same and entering the ethmoid capsul by way of the bulla.

The more radically inclined will favor the operation of Mosher or Ballinger or some modification of these operations. Still others favor the external operation.

Considering the results of all forms of operation we are forced to the conclusion that in the great majority of cases the less radical the procedure necessary, the better the results and that there is still a great opportunity for some ambitious rhinologist to point out a way for the better handling of these cases.

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES

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THE PREVENTION OF DISEASE

Future public health activities will be concerned with two problems: the promotion of health and the prevention of disease. The two require more or less separate interests. No matter how strong and resistant the body may be, ingestion of sufficient numbers of virulent tubercle or typhoid germs will cause these diseases. The promotion of health is a personal matter. The prevention of disease is a community affair. It has already been shown that the promotion of health is primarily a problem of education. The prevention of disease is even more intimately related to education.

That there is an appalling annual wastage of human lives in America may be readily seen from the following list of principal causes of deaths in the United States for the year 1918, as compiled by the census bureau. It must be pointed out here that these figures show the mortality in only 77.8 per cent of the population. To estimate the total number of deaths each figure below should be increased by 21.2 per cent, or approximately one-fifth.

In the death registration areas of the United States (77.8 per cent of our population) there were 1,471,367 deaths for 1918. Because of influenza, the number of deaths for this year is higher than in other years. The number of deaths from the chief causes are tabulated as follows:

1. Influenza	244,681
2. Pneumonia	232,786
3. Tuberculosis	122,040
4. Whooping cough, diphtheria, measles, meningitis.....	41,874
5. Diarrhoea Enteritis.....	59,109
6. Typhoid Fever.....	10,210
7. Dysentery	4,725
8. Degenerative diseases.....	240,889
Including:	
9. Disease of the heart..	124,688
10. Disease of the blood vessels	83,931
11. Disease of the kidneys.	32,270
12. Cancer	65,340
13. Congenital malformations and debility	63,375
14. External causes, accidents....	82,349

This list of principal causes of death in the United States should be familiar to every public health worker. It shows us where we must concentrate our efforts. It helps us to discern between that which is most worth while in public health work and that which is not so important or essential.

Further, this list of the causes of death is so arranged that it shows the mortality due to diseases that are more or less preventable and, there-

fore, belong to those interests or activities which have for their object the prevention of disease, or community health. The first seven items, or one-half of the list, belong to this group.

The second half of this list, items 8 to 14, inclusive, gives the causes of death that are more or less due to ignorance and neglect on the part of the individual and, therefore, may be included within the realm of those operations which are concerned with the promotion of health, personal hygiene.

Of course, it is impossible to differentiate definitely between the abnormal bodily processes that are of community origin and those of individual origin. They overlap and are inextricably interdigitated.

It must be borne in mind that these figures show the actual deaths for approximately four-fifths of our population, due to diseases that are in the largest measure preventable. Just what a human life is worth in dollars and cents depends upon many factors. It is rather sordid to consider human values from a financial basis. However, economists have endeavored, although unsatisfactorily, to ascertain the money equivalent of human life. Fisher computes the annual loss from deaths, in the United States, to be \$1,070,000,000. This is based on an estimate of \$1,700 for each life.

We must not forget that this loss is for actual deaths. The economic loss as a consequence of preventable diseases, which render the victims economic burdens, must reach several billion dollars. Assuredly the payment of our war debt would be an easy matter if we could eliminate human incapacity, sorrow, suffering and poverty that are brought on by preventable diseases.

The prevention of disease is largely a personal matter and must be achieved through dealing with the person. How shall we proceed to deal with the person? Every responsible individual must be made familiar with this fact, that the majority of our serious communicable diseases are spread by contact infection, that is, spread from one person to another. It is the person infinitely more than the thing that must be feared in disease transmission. Social intercourse is responsible for at least 95 per cent of our communicable diseases. In other words, if you contract tuberculosis, diphtheria, or scarlet fever, the disease was passed on to you by some one else harboring the germs who had "crossed your path," and been in fairly close association with you.

Now if we look once more at the list of the principal causes of our mortality, we will find that influenza, pneumonia, tuberculosis, whooping cough, diphtheria, measles and meningitis claimed 641,381 people. These diseases, with scarlet fever, mumps, smallpox, chicken pox, common colds and tonsillitis and their complications are responsible for not far from one-half of our national morbidity and mortality. They are spread by discharges from the mouth and nose and depend in the largest measure for their transmission on direct contact infection.

It is precisely here where the community idea of health comes in. No community is healthier than its one or more infected inhabitants, disease carriers. A chain is no stronger than its weakest link. A social unit is no healthier than its loose tuberculosis victim. One carrier of typhoid germs may be of infinitely greater danger to the

community than failure to observe all the laws on our statute books regarding sanitation. Rigid enforcement of regulations pertaining to garbage removal, street cleaning, slaughter houses and a host of other sanitation measures, will do practically nothing to minimize the dangers of those diseases which are spread as a result of social intercourse. We have made but little progress with the control of those diseases which depend for their spread on human contact—venereal diseases, influenza, tuberculosis, pneumonia and others.

On the other hand, we have made great progress in the control of those diseases which are more or less dependent on "things" for their transmission. Plague no longer worries us because we have made and can make a successful war on the rat, when this disease threatens. Yellow fever and malaria are rapidly succumbing as the conquest of the mosquito progresses. Typhoid fever, cholera and other water-borne diseases are gradually being eliminated because people in general insist on and make provisions for pure water. Our great success in checking these diseases is due in the largest measure to efficient health agencies, for they can successfully cope with those diseases which depend for their transmission on factors other than people. When it comes, however, to the control of human contact infection, the health agencies' efforts are relatively of little avail because they must deal directly with man himself and the average man at present does not want to be regulated.

EDUCATION AND PUBLIC HEALTH

The control of the individual then, is the solution of our future health problems. Laws and remedies of one kind or another, even if good, are unworkable unless the people themselves want them. Only by the education of the masses in character and by leading them to realize the value of positive health and their individual responsibility in securing it for themselves and their community, can a society be developed that will be physically sound and that will effectively reduce and help to eradicate preventable physical defects and preventable diseases. All other methods will fail. Our greatest achievement in this matter will be reached when the desire for and methods of securing health become ingrained in the human consciousness. Each individual must be made to realize potently that the maintenance of positive health, a sound, active and vigorous body, is a sacred obligation he owes to himself, to his family, to his fellowmen and to his country; that he must maintain the highest degree of health so that he can carry on his share of the economic burdens, thereby adequately providing for his family and minimizing human unhappiness, misery and poverty; that he must remain free from disease so that his fellowmen may be protected.

When the majority in a community or district are well informed regarding the fundamental of right living, the promotion of health, and the sources, routes and prevention of communicable diseases, real progress will be made in that community in the promotion of health and prevention of disease, in public health—and not until then.

Education of the masses, then, becomes the chief problem and activity of the future health work. This education must be as broad and long as is that education which stands for good citizenship. It must be an inextricable part of our public school system, our colleges and our universities.

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Editorials

SOME FACTS REGARDING THE A. M. A.

There has been considerable senseless criticism published in Medical Journals regarding the alleged sins of those to whom we have entrusted the official and executive duties of our American Medical Association. Some of this criticism has been pertinent, much more of it has been petty, without basis, and intolerant. Again, at times it has been nauseous and contemptible. In the majority of instances it has emanated from one or two sources. The surprise has been that much of it has been pure fabrication and reveals a woeful ignorance of actual facts. These facts might have been obtained had the critic taken the trouble to do so. The guiding motive seems to be to decry and "knock" regardless of all facts to the contrary. The desire seems to be to "hit" certain individuals just because they have been placed in positions of trust.

They rant about the "Lambert-Rosenow Crime of 1916," "The Selling Out of the Pro-

fession to Compulsory Health Insurance Agitators," "The A. M. A. Oligarchy," "The Vaughan Community Clinic Plan," "The A. M. A. Trustees Dictatorship," etc. There is a continued manifestation of distrust, even of delegates. Those who have not the opportunity of knowing actual conditions may believe there is justification in toto to all that is being charged. To impart the facts, we submit the following:

The "Lambert-Rosenow Crime of 1916" is admitted by the Council on Public Health Education. That council admits it employed Rosenow and sent him out on council work. As soon as it learned about the propaganda that he was spreading, his contract was terminated and his relationship with the council severed. It was simply a case of misjudgment of a man. When the error was detected it was corrected. Why continue to harp about that "crime." The wonder is that other mistakes have not been made. It is certain that there was no underlying intent. We can all err.

The following talks given before a branch of the Chicago Medical Society will explain other incidents. We republish them from the Illinois State Medical Journal.

Dr. George J. deSchweinitz, Philadelphia, President-elect of the American Medical Association: It is a very fortunate circumstance that I happened to be in Chicago today attending a meeting of the central officers of the American Medical Association. I have, therefore, the very great pleasure of meeting you here this evening. Your president informed me that I might talk on any subject I pleased.

I told a distinguished surgeon in Chicago today that I thought I would speak, but I might perhaps recite the Lord's Prayer. He said it was quite useless as "we all know the Lord's Prayer in Chicago." It was a very nice religious sentiment. There is one sentence that makes it the great prayer of the world. It applies to all walks of life, that is the sentence, "Lead us not into temptation."

I come here as president-elect of this great organization which we know as the American Medical Association. I am glad to be represented in that capacity. I come here because it is a great pleasure, as it always has been to meet the physicians of the city of Chicago. I have never met them except in the most pleasing circumstances and in the most pleasing way. It is very interesting to begin to realize, in anticipation of course, that when the rather large job is mine—as far as I am concerned by far the hardest job ever handed to me and the greatest compliment ever paid to my Section—just what I shall have to do. They say in Washington a man gets dusted by his job. I have not got the job yet so I am not being dusted by it, but I am certainly being dusted by those who wish to give me advice. I have heard from physicians far and wide as to just what my duty should be. If all the good advice that has been handed to me be followed, then perhaps I shall meet the situation that shall confront me after May next. I assure you that I shall endeavor

to accept the honor and so act and bear myself up that you will be able to say that I have been dusted by my job satisfactorily to yourselves.

I have traveled so often from Philadelphia to Chicago in the last few months that I think the men who meet me on the train are beginning to take me for a traveling salesman; in fact, one man said, "What is your line?" I said, "My line is optical works." His line was furs and there the conversation ended. I did not entirely tell him an untruth because I have been trying to learn something of this very important business that shall be handed to me later on. I have been trying to look through spectacles that have fitted men far better than I ever hope to be and trying to get some thought of wisdom from them. I have also looked through some lens in which the different angles of astigmatism might be large. I have looked through some for only a short time and I am quite sure those lens were wrong because the whole picture was distorted. I assure you that I shall try to be fitted with glasses, the angles of which are correct and I hope the vision will not be only what it is today but the vision of the future of this great organization.

This high office to which I have been appointed carries with it not only power but also limitations. No matter what our occupations in life may be or what our relationships to those occupations shall be, we must surely try to have power to fulfil those obligations and also power to recognize our limitations. When there is a recognition of limitations in order to neutralize them, there must be conferences and I shall endeavor to plan our component parts of the organization so that each will act with the other in perfect sympathy. That is much, too much, to hope in any organization. Always there must be criticism and it is right that it should exist. Always there must be differences of opinion and it is right, but let the criticism be constructive, let the men who criticise find out whether their criticism is just. Let them bear in mind the first principles of ethics. It is wrong to attribute evil criticism to your colleagues. Look fairly on the subject before you bring it up for criticism. We must remember, gentlemen, in all great organizations progress is made by evolution, not by turning things upside down, or what we call revolution. That is what the Association for all these years has been trying to do, sometimes not so well but always trying to be better; always trying in its executive power to do those things which make the members of the Association get the best out of the Association. We want to be fair, fair, each to the other. If that fairness exists, then it seems to me that this Association, which is this year 75 years old in its organization, will continue to prosper. In a few months from now I shall hold the position to which I have been appointed and I hope that, no matter whether we sometimes may differ, we may come together in all the essential things. I hope that I may feel that I can come to you, gentlemen of the North Side Branch or the entire Society, for conference and consultation and I hope that you will come to me if you care to with your problems, and if I shall not be able myself to answer back, to ask wiser men than myself to clear your problems. Criticise when you like but always stand for something greater than we have been in the past.

Dr. Frank Billings: Much of the unrest in the medical profession of today and much of the criticism of the American Medical Association is

not new. I have been in some way related to the American Medical Association for thirty-nine years. Until the reorganization of the Association in 1901 I could hardly be called a member because, you know, in the earlier days the membership was counted by delegates rather than by those who attended the meetings and until 1901 I had not served as a delegate.

My earliest impressions of the American Medical Association were associated with one of the biggest quarrels of the medical profession that has ever occurred in this country. It expressed itself not only in dispute but in actual physical combat. At the meeting of the A. M. A. in New Orleans in 1883 a quarrel occurred in the general meeting which resulted in fist combat. My namesake, John S. Billings, and William Pepper came to actual blows. That quarrel did not settle at once. It resulted in the secession of the Society of the State of New York, which did not again come into the Association until 1903, 20 years after.

Dr. Craig has told you something about this organization which began in 1901. It has become a thoroughly democratic organization. Any organization based on democracy is bound to have many faults. Our country would fail as a democracy if it were governed purely on lines of democracy. A republic is a better form of government. Our organization as a democracy is a failure in some respects. The county society is the portal of entry and if in that portal of entry due caution were exercised we would not have in the organization, as we have in every state, men who are not fit to be members of the organization. You know there are quacks in the Association. They are allowed to vote for delegates in the state association. That should not be. That is the weakness in the democracy of it. In this organization with constituent associations we have defects in the Council. I venture to say that there is not one state in this Union in which councillors of the state did their full duty. They do not exercise the function they should. They do not take the interest in their component society and in the large association for the professional advancement of the members. In a democracy every member has the right of franchise unless he is cheated out of it, and in the right of franchise he has the choice of whom should be a delegate to the state society and in the House of Delegates of the American Medical Association and, consequently, has a choice in the election of all officers of the Association except the manager and editor of the Journal.

Now a member of the Association, as Dr. Craig has said, is in good standing with the county society and with the state society if he pays his dues. Not one cent of that money goes to the Association. A fellow of the Association contributes no other dues and gets a subscription to the Journal, the one financial earning power of the Association. This A. M. A. earns a lot of money, but it earns it through its printing press, through the journals which it publishes and distributes to not only members of the Association but others who desire to subscribe.

As Dr. Craig has pointed out, the power of the Association in the House of Delegates is very restricted. They are the only ones who have a right to formulate policies. The Board of Trustees, which is responsible for the conduct of the business of the Association and for the handling of its funds, has no right to incorporate policies. The Board of Trustees is simply a board of directors and has jurisdiction over the property and appointment of the manager and editor and through

him the personnel, excepting that of the secretary, who is elected by the House of Delegates. They are responsible for the conduct of the Journal under the management of the Editor, in the selection or rejection of articles presented to the Journal for publication, with this exception, that all articles read before the Sections and approved by the officers are published by the Journal. The Board of Trustees feel they have a right to put up to the House of Delegates suggestions on policies, so that it has in mind how to benefit the member. While the Association should as far as it may attempt to help that member down yonder, it is difficult to do so, excepting to suggest some program that may be followed and perhaps to help finance it if the Association has the money to do it. The actual work of professional help or salary appointments of that member of the Association lies with his associations in his own localities.

We feel as Board of Trustees that we should present to the House certain propositions that may be considered as policies. Let me say to you that there is not a member of this Board who does not feel that the family physician is the most important member of the medical profession. We believe it is the duty of the organized profession to see that he is put in the right place. To do that we have got to have some constructive program that is accepted by the House of Delegates. Will some of you who may be delegates at the next meeting present some plan that will be helpful? There is no individual so qualified by education or experience who does not make mistakes. He only is a knave or a fool who says he never has made a mistake. I do not believe that there is such a man as that in the Board of Trustees. We are willing to be taught. We are willing to be shown. We are willing to try to show others.

Two weeks ago I was requested as a trustee to go to Kentucky. Some of the questions brought up by Dr. Humiston were before their House of Delegates. It was the opinion of some of the medical men of Kentucky that we should lower the standard of medical education and let more men through. It was found there, just as it is in Illinois or in Michigan or in many other states of the Union, that the doctors crowded into the city because of poor roads, poor schools, poor social facilities and poor facilities for the practice of medicine. Those were the main reasons for leaving. It is my opinion, members of the North Side Branch, that the main thing this profession has got to do is to take the leadership and show the federal, the state, and the county governments that they should improve conditions for the members of the medical profession so that they can stay in these communities and do their work.

Dr. Humiston spoke of the attack on the cults and that we should fight this evil legislation. First of all, we will say that those things should be done. All of us agree to that. In my student days homeopathy was hated by the regular medical profession and was persecuted with a venom that is indescribable. Now we have the osteopath, the chiropractic, the Christian Scientist and all the other cults coming up to fight the regular medical profession. You will find that almost all laymen cannot conceive that the members of the medical profession will fight unselfishly for the public; they will always interpret it that they are fighting for themselves; that we are selfish and that we do not want these competitors. That is false, but how are you going to appeal to the public? That is the way they keep coming back

all the time. We believe there is a principle involved and that we must find a means of getting the public to co-operate with the medical profession. As a good example, it was done in California last year; not only the profession but the lay people fought the anti-vaccination bill to a standstill. The California profession assumed the leadership and led the public in the right way. That is the only way in which we can fight the cults—to lead the public into it and let them assume the leadership or let them think they have it. That is only a suggestion. It will perhaps need a different organization than they have had in California. It is a worthy consideration.

I have only a word more to say, that is, to plead with you as a part of the Chicago Medical Society to offer constructive criticism, when you have any to make, of the American Medical Association and of the work which is done. The Council of Medical Education and Hospitals is a creature of the House of Delegates. The Board of Trustees has no power over it. I want to call your attention to the fact that there is not a member of this Board of Trustees who for a moment believes in or will countenance state medicine, no matter what definition you will give it. Please remember that we are fellow members of the American Medical Association and it should be our endeavor to get still further benefits from it and to still further improve medical practice. There are many conditions that must be overcome. Dr. Brown spoke of group medicine, pay clinics. In one of the November issues of the Journal is an article which expresses the opinion of this Board. I know every one will subscribe to the opinion expressed in that article. If you have not read it, you will read it and subscribe to it.

Dr. William T. Williamson, Portland, Ore.: A man to effect a reform must discover first the faults and must know then how to present these faults in such a way that they will be recognized and will not lack in force from his manner of presenting them. It would be idle, it would be foolish, for any man to say that the county society, the state society or the American Medical Association, had done their full duty and had been following the best methods to obtain results. If we have, as the doctor said, this great basis structure, the members of the county medical society, and they are indifferent, if in addition to that indifference there is hostility, and if in addition they are victims of the times, then they are in a state of dissatisfaction, they are hypercritical. But it is not the doctor, it is no particular man, woman or child, it is the whole civilized world. What does the professor in college do, the man who a few years ago we looked upon as a steady anchor, the man who would not be influenced by any force? Now he is the greatest disorganizer of society, the most unstable of men. He will do anything for the purpose of getting into the limelight. When college professors will do that, what can you expect of these poor, ordinary, every-day physicians? They are dissatisfied with the county society and in turn are dissatisfied with the state society. It was stated tonight that the Council did not attend to the needs of the country doctor. A doctor goes into a group, works hard and the result is not satisfactory, and the Association is said to be lacking. Now, then, that goes on and we come to the American Medical Association. Its growth and development has been pointed out and it will be observed that it is a creature of the development forced upon us by the situation. It grew like the city of London, first by an addition here and then one there, each independent of the other, but

called by one name. That is the way with the American Medical Association. It is an interarticulate combination. While the skeleton framework continues, it has been kept together and it has grown, it has upheld the science of medicine in a masterly way, it has excited the admiration of all civilized nations. It has done that because there have been a few at the helm who have steadfastly followed the advances of science. They persevered and in season and out of season kept on toward that one goal—scientific achievement.

The medical schools have developed, the teachings of scientific medicine have advanced. It is in the atmosphere. In the last few years, in spite of the unrest and emotionalism medicine in the scientific aspect has gone steadily on and is still going on and we trust it will continue to go on.

I think the American Medical Association has failed seriously to do certain things that should have been attempted and it has done that because it is not well organized. It is a democracy; it is a federation. It has not only one head but it has several heads. It has one large head, the House of Delegates, and several small heads. The House of Delegates meets at certain stated times and considers questions brought before it and goes home. In that length of time we cannot expect achievement and legislation such as will be found in the state legislature in session for sixty or ninety days at a time. It is quite out of the question. The work has to be rudimentary. That is the fault of the organization. As pointed out tonight, there is a rather mistaken conception of the Board of Trustees held throughout the land. I had the same view. When I was elected I went in with considerable hostility to conditions as they appeared to me. I thought, and I still think, some of them were true, there were faults that could and should be remedied. I watched carefully and I am continuing to watch and I have found, without saying things to you tonight as I would say to you if I had first said them to the Board of Trustees, that they are in a very peculiar situation. The Board of Trustees are a kind of financial group or board, with a limitation placed upon their activities and their powers. There should be, in my judgment, an efficient body, either a board of trustees or some other organization, giving a more continued service for the purpose of outlining policies, for determining methods to be pursued. In brief, scientific medicine has built up a splendid and successful organization and we are proud of it, but economic medicine, the practical side of the situation, has not been dealt with by the American Medical Association. The remedy lies, under existing conditions, in the House of Delegates. When such plans are worked out then for the first time the Association will work for economic medicine just as it has in the past for scientific medicine.

Dr. Wendell C. Phillips, New York, Trustee, American Medical Association: There are two or three things I have been very much impressed with. Only the day before yesterday in passing through the streets of New York I saw on one of the bulletin boards a statement that made a very deep impression on me, and that statement was, "We fought for our country in war, let us fight for our country in peace." To my mind there was a text and it meant we fought for our country in war and now we fight for the upbuilding of our country in peace. That is the theme that I would hand over to you tonight for your careful consideration as we are considering in the Board of Trustees of this great Association today, to upbuild

in every possible way the profession of this great country.

I would like to say to Dr. Humiston that I agree with every word he says and I want to say also to Dr. Humiston and through him to this great state society and to the constituent medical societies of this great state that there was not one suggestion in his address that has not been before his Board of Trustees and receiving most careful consideration, with plans being laid in every possible way to meet these conditions. I believe when you come to listen to the report of the Board of Trustees before the coming meeting of the House of Delegates, you will find some of these things published. In the November 26 issue of the Journal was a statement by Dr. Billings, which I quote herewith, "As members of the Association, we will oppose any measure which will separate the practitioner of medicine from his patient, or any measure which will in any way restrict the private practitioner in discharging his functions or interfering with domiciliary visits." That is a resolution which has emanated from the Board of Trustees. I do not know how we could put it in a stronger way or in a more forceful way. You must remember that it is only a short time since the war closed, when every activity of this great Association was turned over and yet some of you may not know how much the Association contributed by placing its facilities with the government. Now we have entered this period of reconstruction. So far as the time has been allowed to us I want to say that the Board of Trustees in addition to its regular function shall endeavor to meet conditions for which we are being criticised by men who do not know the facts. I am not going to take up a great deal of your time but I want to say that so far as the trustees of this organization are concerned, the Board of Trustees is functioning.

Dr. Charles W. Richardson, Washington, D. C., Trustee, American Medical Association: I did not come tonight with the intention of making any remarks. I came to hear a sermon and to enjoy the discussion. I have enjoyed each and every remark that has been made. They have been enlightening to me. This spirit of unrest which is seen to pervade a great portion of the west I am pleased to say has not affected my part of the country and I am somewhat surprised at the extent of it. I cannot exactly define it. In my locality, the adjacent states of Maryland and Virginia are frequently coming in contact with us in that the Medical Society of North Virginia meets two or three times a year in Washington and we go to their places of meeting. The same with the Frederick County and the Prince George County Society of Maryland. In those associations we find the same type of men as I see here tonight and they seem healthy, wholesome, optimistic and non-critical. I feel that a good deal of this feeling of unrest is a part of the general unrest of the country, of the general pessimism that follows disturbed conditions that have been present for the preceding three years of the war. It is natural in all associations, not only medical but other professional organizations, that one of the causes of this can be traced directly to ourselves. We are a little inclined to be unjust to one another, to be a little fault-finding, not only with our environment, with our associates, but with things in general. I believe if we would get on a higher plane and be less suspicious, be less critical, be more constructive, be more optimistic, be more willing to work to aid each other and thereby

aiding ourselves, we will eliminate a great deal of this criticism which exists among us. We are too much given to our own selves, to introspection. We are really unsocial to the man. We do not mingle enough with each other to understand and know each other and therefore we grow suspicious of each other. I think that if, as Dr. Brown has said, the indifference of the members of the county medical societies and the district medical society, was overcome and that they would work for the betterment of the district medical societies, that the whole body of the medical profession would go forward instead of going backward. You cannot stimulate a man unless he has got a heart. If he has a heart and is willing to work and willing to look upon things from an optimistic point of view, he is bound to raise himself and to succeed. I feel also that a good deal of this unrest among the men in the district and county societies has been due to the fact that a great many of them have served in the Army and have served in the Public Health Service and they have seen conditions existing in applied medicine which they cannot carry back with them in their civil practice and that has made a great deal of unrest among medical men. We must consider all these things and consider how they play upon the medical body.

Now, if you have read and reflected upon the statements of these men you will perceive that all "is not rotten." We have known these men for years. We have every confidence in their honesty, integrity and sincerity. We respect their statements and believe in the wisdom of their advice. Changes will and must be made in certain instances to meet the new social conditions. Their nature rests entirely with the doctor and his county society. Your organization, county, state and national will be just what you make it. It will reflect just what you contribute to it. May it be constructive and not anarchistic. Let us discontinue the cry of calamity, the charges of misconduct in office and bend to a constructive solution of the problem of our relationship to the public.

AN INSULT FROM ILLINOIS

"Evidently some of the Michigan doctors feel that Burton and Cabot, et al, have abandoned their former socialistic plans. Like the Scotchman "I hae me doots" the leopard cannot change his spots; we are from Missouri and in this case have to be shown. All our life we have been watching the performance of medico-politico acrobats, jugglers, trained seals and tight rope walkers and we feel that we are perfectly competent to recognize such performers when we see them.

Burton and Cabot have not reformed. At the meeting referred to above they camouflaged and sidestepped completely the fact that in the past they have been advocating socialized medical schemes such as the community clinics which they proposed would be a direct step toward placing the practice of medicine in Michigan under state control.

We believe with Dr. Albert E. Bulson, Jr., editor of the Indiana State Medical Journal, in his

analysis of the Michigan proposition, when he says "that the community clinic which they proposed would be a direct step to place the practice of medicine in Michigan under state control. In fact, they boldly stated that these clinics in various sections of Michigan were to be conducted and controlled by the University authorities, the latter course being under state control. Just what the medical men of Michigan are thinking of to let the University of Michigan pull off a stunt of that kind is more than I can understand. Furthermore, if the University of Michigan, as avowed in their statement just published, is to confine itself to teaching, why in the name of heaven have they arranged for enormous hospital facilities far beyond the needs of teaching purposes? There is a joker in the whole program and the medical profession of Michigan will wake up when it is too late."

The above is an editorial published in the Illinois State Medical Journal. It contains an unwarranted insult to not only our members and the Council, but to President Burton and Dean Cabot. We cannot help but wonder where the editor got his information.

We happen to know all the facts regarding the agreement with the University and we know there is no "hidden joker," "camouflage" or "stunts" in the plan or the constructive movement that is being undertaken. We know we are dealing with men of honor and integrity as well as gentlemen. The editor from Illinois is without that information, yet he passes judgment, opinion and offers insult.

In a measure we are not overly surprised for that has been his policy for several years. He "rants" and "sounds off" all to frequently without reason or facts. We did think he was a gentleman, but evidently we are in error.

President Burton and Dean Cabot do not require editorial vindication. We do resent the insult from Illinois and want our members to see the kind of man this editor is that poses as a reformist. God spare us from such leaders.

PUBLIC HEALTH EDUCATION

The joint committee on Public Health Education held its second meeting in Ann Arbor on March 4. A preliminary list of some fifty topics and speakers was completed. This list is being prepared for issuance in the form of a Bulletin and will be distributed state-wide during April, and the active work of booking lectures will be undertaken. The committee meets again in Detroit on March 27.

At the present time practically every County Society has appointed a sub-com-

mittee to co-operate with the State Committee. These sub-committees will be called upon repeatedly to insure the success of our public meetings.

As stated in a former editorial, we believe this to be the greatest constructive movement ever undertaken by the profession. It answers the oft repeated lay-question: "What is the Profession Doing for the Good of the Public?" We have been accused of ever serving our own selfish interests. This movement will refute that allegation. It is further going to so enlighten the public that they will be able to differentiate between scientific and unscientific practices. Thoughtful reflection will cause you to perceive the wisdom and value of the movement.

THE FUTURE OF MEDICINE—THE IDEAL TO BE SOUGHT

I wish to quote to you from Conway:

"To a human being his ideal represents his individual existence. One life we each have, which is merely hereditary. We receive it from our ancestors, we share it with others; it is common property. There is another life which is our own. There each stands in the presence of his own Sinai, receives the Tables of Law of his individual life. To him there comes a Decalogue of private interpretation and the command—'See that thou do all things after the pattern thou didst see on the Mount!' So indeed must he work—if the world is to be better by a feather's weight for his life in it—so must he build, quarrying his hereditary nature, polishing it for his individual structure. Nor shall he pause to ask whether the edifice is to be completed and adorned, and, labor give way to happiness. He cannot reach the great end, because there is no end; the scale is infinite; so have the poets said who reached the seeming summit only to behold a higher height rising before them ever more. Let it be enough for each that the genius of God finds no obstruction in him; that he is part of the organizing force of the universe—as much as the coral building in the sea, the sun that vitalizes a world. And when the day is past and his bit of work is done, the ideal he has served will whisper a sweet and secret joy—'Thou hast labored, and others will enter into thy labors.'"

How truthfully this applies to us! Is this not an expressive keynote to govern us and to dispel the chaos in which we find ourselves? Does it not formulate the ideal for

the future of medicine—a solution as to the part each must assume

Our science has made rapid progress. The public perceives the power we possess to conserve and prolong its physical well-being. Knowing it demands the benefits of that power. No individual can become expertly proficient in the application of all scientific knowledge. The average lay individual cannot afford to purchase these benefits unless we correlate the cost with his ability to pay. His love for his offspring may cause him to incur a single sacrifice, the result of which will bring him greater disaster than the occasion involves, and assume an obligation beyond his financial responsibility. He will not do so repeatedly at the cost of his independence. It is when we compel such repeated sacrifices that he will through his legislators demand that the state grant to him that which we make it impossible for him to secure. It is for us to make available to the average layman professional services that will protect his physical welfare and at the same time provide for ourselves emoluments that beget to us and ours a competency which will provide life's comforts and joys. Veritably a stupendous problem fraught with potential eventualities, still, not impossible of satisfactory solution.

When we individually and collectively fail to meet the ideals and demands of the public, we relinquish our right to its trust and confidence. Sordid, commercial ambitions seek to cause us to forfeit the people's confidence. Are we to develop solely as commercialists, worshiping at the shrine of dollar idolatry, the size of our golden calf the index of our attainment and skill? Or shall we continue as true votaries of our science, with the welfare of our fellow-man as our first consideration, with personal reward and independence a co-incident factor of our humanitarian services? We are pressed for the answer.

The world upheaval of but a few years ago is still manifesting itself. We have not accomplished our readjustment. As a profession, in company with all other scientific groups, we have been drawn in the maelstrom of social and commercial confusion. It is little to be wondered that there has been much discussion of various forms of state controlled medicine and cult practices, that seek to bring about a new relationship between physician and patient. Such propaganda is but the bubbling gases escaping from the fermenting process. Efferves-

cent in theory and nature, they may momentarily arrest progress, divert our purpose and cause a feeling of apprehension. We have lost sight of principles. We have been unnecessarily concerned with details.

Compulsory Health Insurance will not and cannot become an American institution. The freedom, temperament and culture of our people will not tolerate it. The domiciliary right of the American home will not countenance the violation of its precincts by the invasion of statute created authority assuming to minister to the flesh and blood of the father and mother, the heads of that home. I have no fear or concern that such a state of affairs will come to pass. My greatest concern lies with the physician, surgeon and specialist of today and their followers of tomorrow—concern as to how they are going to measure up to the new state of affairs that is to be, how they are going to acquit themselves of their new responsibilities, and concern as to the ideals that they will erect to govern and inspire them. Upon that principle does our future rest. "An age deficient of idealism has ever been one of immorality and superficial attainment, since without the sense of ideals, nobility of character becomes a rare attainment, if possible." (Alcott)

The day of the individual doctor in the light that we have known him, has passed. Group practice of medicine succeeds him, except in certain instances. Community clinical centers must and will be provided. We must, on our own initiative, organize these groups and organizing them demand that our national, state and county medical organizations shall supervise and censor their activities and conduct. A code of ethics was formulated by our elders for their and our guidance. So must we formulate the new ideals that shall govern these groups of medical men. We must revamp, revise and add to that code of ethics so that through its precedents we shall conserve our present distinguished position, acquire renewed public confidence and establish a leadership in state and nation in all matters pertaining to the health and physical welfare of the people. Therein lies our future stability, the future of the medical science, its practice, hopes and aims. While wearing the mantle of science we cannot worship in the temple of gold. The caduceus cannot be cast aside and in its stead the money pots of Midas be accepted as the emblem of the medical profession's integrity.

It is your definite responsibility, as members of a special organization of radiolo-

gists, to contribute that constructive support to those whom you delegate as officers of your American Medical Association. A specific task is yours in the accomplishment of the solution of the problem. The degree with which you acquit yourselves in conjunction with your conferres, will determine the future of medicine and the ideal to be sought. Let us ever remember that what is stirring the world's heart, changing the face of the times and representing the form and working of the age is that intelligence, that sentiment, those thoughts and opinions, whose written and spoken word is power. That power is ours, providing we formulate an acceptable ideal that will impregnate the activities of our associates in the readjustment of medical contact with the people who compose our constituency. Frederick C. Warnshuis, M. D., F. A. C. S.
Grand Rapids, Michigan.

*Response delivered at the Annual Banquet of the Radiological Society of North America, Chicago, December 7-8-9, 1921.

Editorial Comments

We have been looking for some more comments from our friend up in the "Jack Pines." Evidently the sleet storm and snow has hindered him in sending in his wholesome reflections. We expect them for our next issue.

Our next issue will be the Flint number. It will contain the preliminary announcement of the program for our annual meeting. If you have not already made reservations for your room we suggest that you write today.

Now that you have ceased using your spare hours and midnight oil in your endeavor to figure your income tax, you can have no other excuse for not getting into society work. Attend your next meeting. Assume a part of the work and subscribe your efforts to put over the plans submitted. This is the year when we must have 100 per cent co-operation.

We have been always of the opinion that hospitals and nurses were the aids and assistants to doctors in the treatment of patients. Lately it seems that the contrary or the reverse is the attitude that is being assumed. That doctors are servants of and subservient to the hospitals seems to be the relationship now in vogue. And who is to blame? We invite your discussion.

Every movement or article that tends to acquaint the public with what scientific medicine can and does accomplish means that the public are going to call upon the scientific profession to secure those benefits and not be misled by the unscientific claims of irregulars or the cults. To that end it becomes every doctor to come out from behind his cloak of mysticism and vague terminology. Take your patients into your con-

fidence and discuss their conditions frankly and be equally frank in telling them just what they may expect from the treatment you institute. Cut out handing them "bunk."

We believe in criticism and invite it. There are but two conditions and that is one must know the real facts of a criticized incident and secondly, constructive suggestions to better the condition must accompany the criticism. It is easy enough to condemn, but condemnation without a correcting remedy accomplishes very little. The greatest fault, and one that is almost unforgivable, is to criticize and condemn an individual who was in no way responsible or at all connected with the incident upon which judgment is being pronounced. Be sure of your ground and then go ahead, but do not run off on a tangent and only half-cocked.

On March 8th, under the auspices of the Kent County Medical Society and other health agencies of that city, Dr. Haven Emerson of New York addressed a public audience of some 800 people on "The Value of Periodic Medical Examinations." The speaker held his audience with his splendid address that covered the subject most thoroughly. Many questions were asked by this lay audience.

This meeting is cited because we are more familiar with its nature. Similar meetings have been held under the auspices of the Wayne and Genesee Societies, and lay audiences have been addressed upon medical subjects. This is the work our medical societies must pursue. These meetings must become state-wide. See that your society falls in line.

Dr. Prall, secretary of the Eaton County society, expresses very emphatically the problems before that society in the following which is extracted from the notice of their March meeting:

LATEST NEWS

1. Needed change in policy and leadership in A. M. A.
2. Contribution by local society to legislative and educational fund.
3. Read editorials in February State Medical Journal on
 - (a) Michigan State Medical Society and the U. of M.
 - (b) Minutes of the January Meeting of the Joint State Council.
4. Altogether on the State Public Health Educational Campaign, our protection from the cult.
5. Next annual meeting of the state society in Flint, June 7, 8 and 9.

More and more people are coming to doctors for physical examinations to determine their condition and to receive advice as to how they may escape the inroads of disease. More and more are the complaints from these people that they went to a doctor or several doctors and received only a very superficial examination which they knew would not enable the doctor to make a correct appraisal of their health. They rightly are critical and are justified in lacking confidence in the profession. The practice of medicine today is more than the feel of the pulse, the look at the tongue, a few questions and a perscription or some pills. There is need for more thorough work,

more thorough examination. One must spend more time in taking a careful history and the securing of a connected symptomatology. In addition, no physical examination is worthy of the name unless the patient's clothes are entirely removed and methods of physical examination employed—inspection, palpation, percussion and auscultation. Follow through from the top of the head to the soles of the feet and do not forget the ears, teeth and rectum. Include the reflexes, the blood pressure and the heart muscle after exercise. Secure the urine as a routine and if at all in doubt do not forget a Wassermann. Then sit down and talk things over with your patient. It is not at all necessary to always give a prescription; advice may be all that is required. Such an examination means something and enables you to satisfy your patient. Yes, it takes a little more time, but with the systematizing of your methods the added time required will not be so very great. Anyhow, we are at a point where we all must spend more time in our examinations. The man who does will succeed; he who fails to do so is headed for the discard. Thoroughness in your work brings a heap of satisfaction and begets your patient's confidence. Do not let your patient, when he goes to another doctor, say that you did not give him the type of examination that he is receiving at the other doctor's hands—he probably will not go to the other doctor if you are thorough. That is what we are driving at—thoroughness.

The Bureau of Special Investigation of the Detroit Department of Health has been very active and effective the past year. During this time the activities of this Bureau has resulted in 912 court hearings with \$24,625 paid in fines. The cases investigated comprise 55 malpractice (physicians and dentists), 25 failures to file birth and death certificates, 22 failures to safeguard children against communicable diseases, 131 failures to provide proper medical care, 102 for practicing medicine without a license, 6 for practicing midwifery without a license, 1,174 infractions of statutes by venereal cases, 33 undesirable boarding places and new maternity homes, 22 mental cases needing institutional care, 101 children whose guardians failed to provide proper shelter, food, clothing and care, 23 abortion cases, 16 non-support and abuse of wives, 20 rape cases and numerous other conditions.

The nurses in this Bureau rendered 8,271 services and John H. Roehl, Special Investigator, handled 4,743 cases, making the total number of services rendered by the Bureau 13,014. Nurses in other divisions during the year rendered 9,191 services directly or indirectly for the Bureau. Forty-five licensed midwives were under the direct supervision of the Bureau in 1921 and three licenses were revoked by the Board of Health for failure to comply with the rules.

The activity of the Bureau of Special Investigation has had a salutary effect on the advertising quack doctor. The campaign against this class of undesirable practitioners has been unrelenting with the result that Detroit is slowly being rid of the quack.

Deaths

Doctor George W. Orr of Lake Linden was born in 1847 and died January 23, 1922. He graduated from the Medical Department of the University of

Michigan in 1877. The doctor was the founder of the Lake Superior General Hospital, Lake Linden.

Doctor Jacob Oosting, born in the Netherlands 1866. Died at his home in Muskegon January 30, 1922, pneumonia being the cause of death. Graduated from Detroit College of Medicine and Surgery in 1897. Practiced in Muskegon from 1897 until the time of his death. Served as city physician in Muskegon from 1902 to 1906. He was a member of the staff of Hackley Hospital and the Muskegon County Medical Society.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Wanted—Experienced medical salesman to sell a practical medical work entirely new and unique that is a proven seller. We want a live wire salesman capable of making not less than \$150 per week. Must be educated and around forty years of age, with clean record. Permanent position and exclusive territory given. Write fully. The Medical Interpreter, care of W. B. Conkey Co., Hammond, Ind.

Dr. T. D. G. Gordon of Grand Rapids was married on March 15.

Dr. and Mrs. E. T. Tappey of Detroit are spending the winter in Pasadena, Cal.

Dr. and Mrs. W. D. Barrett of Detroit announce the birth of a daughter, Ann, March 2, 1922.

The Western Michigan Travel Club will spend April 7 and 8 at the Crile Clinic in Cleveland.

Dr. Ira Downer read a paper on "Hydronephrosis" before the Detroit East Side Physicians' Association, February 2.

The American Congress on Internal Medicine will hold its Annual Clinical Week at Rochester and Minneapolis, April 3-8, 1922.

Dr. Harold Wiley has recently moved here from Grand Rapids and is now located in the Medical Building. He will specialize in obstetrics.

Dr. W. T. Dodge of Big Rapids will return April first from a two month's vacation spent in Florida.

Dr. D. Emmett Welsh of Grand Rapids, will return during the first week in April from a two months' vacation spent in California.

Dr. L. W. Toles has opened offices in the Capitol National Bank building and will limit his practice to diseases of the ear, nose and throat.

Doctors Joseph Croman and V. H. Wolfson of Mount Clemens were in attendance at the First District Councillors meeting held in Detroit, Feb. 13.

Dr. Arche C. Hall was recently elected Vice President of the Michigan Club of Detroit (formerly the Fellowcraft Athletic Club).

The Tri-State Medical Society (comprised of physicians from Indiana, Ohio and Michigan) will hold an all-day session at Ann Arbor, April 11.

The Detroit Academy of Medicine met February 28, at the residence of Dr. F. C. Kidner. Dr. J. W. Vaughan read a paper on "The Diagnosis of Liver Tumors."

Dr. George E. McKean returned to Detroit March 12, from a trip through the south. The doctor spent most of his time at Miami, Florida and Pinehurst, N. C.

Dr. J. B. Kennedy spoke on "British and American Diplomacy," February 14, before the Daughters of the Empire in the club house of the Federation of Woman's Clubs, Detroit.

Dr. Guy L. Kiefer was elected President and Dr. C. S. Kennedy, Secretary, of the recently formed Detroit Alumni Association of Phi Rho Sigma which already has a membership of 50.

Dr. George Kamperman read a paper on "The Results Of Local Treatments of Endocervicitis As Shown by Microscopic Findings" before the Detroit Academy of Medicine, March 14.

Botulinus Antitoxin (Type A, Type B, and Combined Type A and Type B) is available to physicians for therapeutic purposes on application to Dr. F. M. Meader, Detroit Department of Health.

The Phi Rho Sigma, Chapter Founders Banquet, was held at the Statler Hotel, February 24. Doctor W. J. Stapleton was toastmaster and Doctors Stuart Wilson, A. L. French, Guy L. Kiefer, J. B. Kennedy and others spoke.

It has recently been announced that properly labeled pathological specimens will be placed on exhibition between 8 and 8:30 o'clock at each of the weekly meetings of the Wayne County Medical Society.

The Library of the Wayne County Medical Society has recently received a contribution from the Maimonides Medical Society and books and journals from Doctors J. N. Bell, F. W. Robbins and C. E. Simpson.

The total appropriations of the General Education Board from 1902 to June 30, 1921, have amounted to \$89,017,872. During the past year the appropriations for medical schools by this Board were \$12,029,513.

Mrs. Augusta Kersten of Detroit was convicted in Judge Faust's court February 21, of practicing medicine without a license. The chief witness for the state was Mrs. Mary Smock, a Detroit Department of Health nurse.

The Maimonides Medical Society of Detroit met on Feb. 28. The evening was devoted to a historical discussion of Maimonides, the Medieval

Physician and Philosopher by Drs. J. B. Bauch, W. W. Kahn and N. E. Aronstein.

The Detroit Ophthalmological and Otological Club met in the Medical Building, March 1, as the guest of Dr. Eugene Smith, Jr. Following the dinner, the Doctor read a paper on "Foreign Proteins and Non-Toxic Placental Residue."

The regular meeting of the Academy of Surgery of Detroit was held at Harper Hospital, February 10. The program consisted of presentations of patients and reports of cases by Doctors E. K. Cullen, G. E. Pemberty, N. M. Allen and W. R. Clinton.

About 20 of the Detroit Alumni of the Johns Hopkins Medical School, met February 26 at the D. A. C. Following a buffet supper, Dr. Winford H. Smith, Superintendent of Johns Hopkins Hospital, spoke on the future plans of the Hospital and Medical School.

Doctors B. D. Harison, Guy L. Connor, W. H. MacCracken and Henry Vaughan of Detroit, Hugh Cabot and C. G. Parnell of Ann Arbor and W. H. Sawyer of Hillsdale, attended the meetings of the Congress on Medical Education, held in Chicago, March 6-10, 1922.

Dr. James E. Davis, Professor of Pathology in the Detroit College of Medicine and Surgery, has recently been appointed Acting Secretary of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. He succeeds the late Dr. E. G. Zinke of Cincinnati.

The Detroit West Side Physicians' Association met at Providence Hospital, February 9. Dr. A. D. LaFerte read a paper on "The Commoner Orthopedic Conditions and Their Treatment," and Dr. H. W. Plaggemeyer, on "The Diagnostic Points of Lesions of the Genito-Urinary Tract."

Dr. Harry L. Clark, Professor of Bacteriology in the Detroit College of Medicine and Surgery, gave a lecture on "Germs, Good and Bad, in Our Everyday Life" for the general public at the Medical Building, Detroit, February 24. Lantern slides, cultures and animals were used to illustrate the talk.

At its February 7 meeting, the Detroit Branch of the American Urological Association approved of the Regulations Governing Types of Cases to be admitted to the Venereal Clinic of the Detroit Department of Health with the exception of one regulation which has since been changed to suit this branch.

Dr. E. H. Foust a former member of the Gratiot-Isabella-Clare Medical Society has been elected a member of this society. Dr. Foust who has recently completed a post-graduate course in New York has opened offices in the Capitol National bank building and will limit his practice to diseases of the eye.

The March meeting of the Detroit Society for Neurology and Psychiatry was held at Eloise, March 2. Dr. Emil Amberg presented a paper on "The Conceptions of Oto Sclerosis," Dr. D. R. Clark gave an illustrated talk on "The Problems of the Psychopath," and Dr. H. A. Reye presented a series of cases of chronic epidemic Encephalitis.

Dr. Hubert Work was nominated by President Harding and was confirmed by the Senate, March 2, 1922, to be Postmaster General. The doctor was formerly speaker of the House of Delegates and now President of the Americal Medical Association. Before he became First Assistant Postmaster General, he was Republican National Committeeman for Colorado.

The School of Hygiene and Public Health of Johns Hopkins University was given, February 28, \$6,000,000 by the Rockefeller Foundation. Of this amount \$1,000,000 will be available for the erection of new buildings for the school and \$5,000,000 for an endowment covering maintenance. Work on the main building will start this summer. The Rockefeller Foundation has previously given the School of Hygiene \$930,970.

The Detroit Committee of the American Society for Control of Cancer has been reorganized. Because of other activities, Dr. Manton resigned and Dr. G. Van Amber Brown was appointed to fill his place. Drs. Jos. Andries, F. C. Meader and J. E. Davis were added to the committee. Dr. J. W. Vaughan is Chairman and Dr. H. C. Saltzstein is Secretary. The following laymen have been asked to serve as associate members: Fred T. Murphy, E. D. Murphy, H. M. Fechner, G. E. Philli, R. H. Webber and D. J. Healy.

The Detroit Department of Health recently requested that two members from each of the following societies (Detroit Branch of the American Urological Association, the Detroit Dermatological Society, and the Public Health Committee of the Wayne County Medical Society) be appointed to comprise an Advisory Council who could work with the Detroit Department of Health in solving some of the problems which confront this Department. The following men were appointed to comprise this Council—Doctors John Dodds and H. L. Morris (Urological Association) E. C. Troxell and R. C. Jamieson (Dermatological Society) and H. R. Carstens and H. A. Reye (Wayne County Medical Society). This Advisory Council met with the Detroit Commissioner of Health, February 24, and discussed informally certain problems which were presented. There will be frequent meetings of this committee in the future.

The completion of the staff of the Detroit Receiving Hospital was announced February 25, by Dr. T. K. Gruber, Superintendent. The attending physicians are Doctors B. C. Lockwood, W. D. Mayer, C. H. Chase, Douglas Donald, R. M. McKean and E. D. Spalding; the attending surgeons, Doctors Rolland Parmeter, H. K. Shawan, R. C. Andries and L. J. Dretzka; attending orthopedic surgeons, Doctors A. D. LaFerte and F. C. Kidner; attending gynecologists, Doctors E. K. Cullen, W. F. Seeley, H. W. Yates and W. A. Repp; attending urologists, Doctors F. H. Cole and H. W. Plaggemeyer; attending ophthalmologists and laryngologists, Doctors Duncan Campbell, R. H. Pino, and E. Schultz; attending alienists, Doctors D. R. Clark, H. E. Safford and A. W. Ives; attending neurologist, Doctor H. A. Reye; attending proctologists, Doctors E. G. Martin and H. Kallett; attending dermatologists, Doctors R. C. Jamieson and H. R. Varney; attending roentgenologists, Doctors H. P. Doub and P. M. Hickey; attending dental surgeons, Doctors D. S. Graham and Lloyd Rogers, and director of the laboratory, Doctor P. F. Morse. Doctor Hugo Freund was appointed consulting physician.

County Society News

BAY COUNTY

A regular meeting was held at the home of Dr. F. S. Baird, Wednesday evening, March 1st. There were 28 members present and much routine business was transacted.

Dr. J. H. McEwan read a very interesting paper on "Diphtheria."

Dr. and Mrs. Baird proved very delightful as host and hostess. A very sumptuous luncheon was served and the society adjourned to meet Monday, March 13th, and be addressed by Dr. Klingman of Ann Arbor on "Nervous and Mental Diseases."

L. FERNALD FOSTER, M. D.,
Secretary.

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, March 1st, 1922, President Miner presiding. Dr. J. B. Jackson of Kalamazoo read a most interesting paper on "Tuberculous Pleural Effusions." Many fine lantern slides were shown. The essayist discussed the more recent advances in the pathology of this disease. Referring to laboratory tests, he stated that we should use larger quantities of fluid for injection into guinea pigs in order to demonstrate the bacillosis, and urged that we use at least 10cc in the test. The indications for treatment were outlined and prognosis discussed. He seemed to think that we did not usually consider the disease as seriously as we should.

The Genesee County Medical Society met on Wednesday, March 15, Dr. F. B. Miner presiding. Dr. Fred A. Collier, Associate Professor of Surgery, University of Michigan, spoke on "Osteomyelitis," illustrating his lecture by many well chosen lantern slides. The clinical section of our society has given up clinical meetings and has supplanted them by the regular staff meetings of Hurley Hospital. At the last meeting of the staff, the evening was devoted to a study of the case histories of all patients dying in the hospital during the month of February.

W. H. MARSHALL,
Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The February meeting of the Gratiot-Isabella-Clare County Medical Society was held at Brainerd Hospital in Alma, February 16. The inclosed program was carried out.

In connection with the discussion of Dr. Day's paper, the following motion was carried:

Resolved, That the Gratiot-Isabella-Clare County Medical Society go on record as favoring a modification of the "Venereal Law" so that the physician may dispense his own medicine, the same as in other diseases.

E. M. HIGHFIELD,
Secretary.

INGHAM COUNTY

January, 26, 1922.—Dr. Louis J. Hirschman of Detroit read a paper on "Local Anaesthesia in Anal-

Rectal Surgery." With the aid of lantern slides, Dr. Hirschman explained the technic and advantages of local over general anaesthesia in this special branch of surgery.

February 16.—Dr. Hugo Freund read a paper on the "Management and Treatment of Hyperthyroidism." This proved a highly instructive paper and was read in an understandable and logical manner. It was discussed by Drs. Carr, Davey, Huntley and Holm.

Thursday evening the members of the society met in the new laboratories of the Michigan Department of Health. Drs. Olin, Young and Kahn were on the reception committee. The members were taken on a tour of inspection. Modern equipment was evident in each and every department. Two hours were spent in going through the plant, during which time Dr. Young explained the details and working methods of the various departments.

H. C. ROCKWELL,
Secretary-Treasurer.

KALAMAZOO COUNTY

Regular meetings of the Kalamazoo Academy of Medicine were held February 14th and 28th, 1922. The Academy was fortunate on the 14th to hear Dr. J. T. Case of Battle Creek. The doctor read a very instructive and interesting paper on the "New Roentgentherapy"—especially as he saw it developed in his recent trip to Europe. He showed definitely that the outlook for the future treatment of cancer—particularly cancer of the uterus—is very much brighter. Incidentally, Dr. Case related many interesting incidents illustrating the present economic conditions of Europe in general and France and Germany in particular.

On February 28th Dr. C. W. Barrett of Chicago was with us. In the morning the doctor conducted a gynecological clinic at the Old Borgess Hospital, and in the afternoon read a paper before the Academy on the subject of "The Treatment of Pelvic Inflammatory Diseases." Both the clinic and the meeting in the Academy rooms were well attended.

The Academy has instituted a membership drive in an effort to bring into the Academy every physician in good standing in Kalamazoo, Allegan and Van Buren Counties.

W. G. HOEBEKE,
Secretary.

MACOMB COUNTY

The Annual Meeting of the Macomb County Medical Society was held on February 1, at the rooms of the Business Men's Association, Mount Clemens, Mich.

Eight members were present.

The annual reports of the secretary and treasurer were read and approved.

Twenty-six members comprised the membership of the society the past year.

It was decided to hold meetings throughout the year, and the first one to be held in the Hotel Medda, Wednesday, February 15, with each member present agreeing to attend. However, on account of the proximity of Wayne County Medical Society at Detroit to which several members of our society are associate members, it makes it possible to attend their meetings and some members avail themselves of this privilege.

The officers of last year were all re-elected, viz:

W. J. Kane, President; C. Mann, Vice President; R. W. Ullrich, Treasurer; V. H. Wolfson, Secretary.

The county dues were raised to \$7.00. In as much as \$5.00 were necessary for the State Society, which includes the Journal, it was decided to have a fund for emergency purposes and thus save making individual assessments.

The resolution that was sent to every County Medical Society of the United States by the Medical Advisory Committee was presented to our society and approved and a copy of the same is being sent to the Michigan State Medical Society, Journal of A. M. A. and Medical Advisory Committee as suggested.

Various other matters pertaining to the welfare of the society were brought up and disposed of.

At our annual meeting held yesterday, Dr. E. G. Folsom, one of our active members, prepared the enclosed "In Memoriam" of our late members, Drs. Lungershausen, Parisot and Taylor.

This "In Memoriam" has been spread upon the minutes of our local society.

IN MEMORIAM

The Divinity that shapes our end, the Law so long promulgated that "it is appointed in every man once to die" is no respecter of persons. It is therefore inevitable that he devotes his life and energy to the mitigating of his fellow man's suffering, and to the lengthening of his days on earth, shall in the end pay the same debt to nature that all life is called upon to recognize.

The physician cannot prolong his own life beyond his allotted time. For him it is "dust to dust, ashes to ashes" as with all created things. He is animal and human, but his soul goes marching on, and there may remain behind him a gracious memory of kindly deed, of unselfish service, of unnamed benefactions. These things live after him, and become as stars in his crown, a crown of everlasting life.

The grim reaper has visited the members of this society in the past few months, and removed three of its active and respected members, Waldemar Lungershausen on May 3, 1920, in his 47th year of his life; Albert A. Parisot on February 3, 1921 in the 55th year of his life, and Harry F. Taylor on March 17, 1921, in the 58th year of his life.

It is fitting that this loss in membership should be recorded in the minutes of the Macomb County Medical Society as a mark of respect and appreciation of their services to this community in which they were born, lived and died.

VICTOR HUGO WOLFSON,
Secretary.

SHIAWASSEE COUNTY

The February meeting of the Shiawassee County Medical Society was held in Owosso on Feb. 7 at the Elk's Temple at noon. After a lunch had been disposed of, President Cramer called the meeting to order and introduced the speaker, Dr. S. S. C. Phippen of Owosso, who gave a most interesting paper on "Hyperthyroidism." Taking up successively the history, etiology, pathology, symptomatology, diagnosis and treatment, the writer gave a very complete description of the disease.

Dr. F. S. Osterheld of Ovid, leading in the discussion, recalled what Dr. McKean told us a few weeks ago; i. e., that prophylaxis was far better than cure, and reminded us that the regular administration of potassium iodide in small doses would act as a sure preventive in children. Calcium iodide may also be used, sometimes in preference to the potash salt. Also it must not be for-

gotten that hypothyroidism may be co-existent with hyperthyroidism. In that case the endocrines are indicated.

Dr. W. T. Parker called attention to the fact that group conditions always accompany hyperthyroidism. That colloid goiter causes disturbance from pressure, principally. And adenoma of the thyroid is not benefitted in the least by medical treatment. It is usually well to combine thyroid extract with iodides. In goiters of persons of advanced age, there is no exophthalmus. Heart complications which often clear up in the young, do not do so in the older patients. In acute cases, of young patients apply ice bags first, later injections of boiling water, tying of bloodvessels, etc. The prognosis depends on the myocardial condition. The doctor then brought in a patient with typical goiter. A general discussion followed which was of much interest to all.

Dr. A. M. Hume moved that the paper just read be sent to the State Journal for publication. The motion was carried unanimously with the exception of Dr. Phippen, who modestly opposed. President Cramer announced that a speaker from out of town would entertain the society at the next meeting which will be on March 7.

W. E. WARD,
Secretary-Treasurer.

TUSCOLA COUNTY

The Tuscola County Medical Society met on March 9 at Wahjamego as guests of Dr. Dixon.

A very fine chicken dinner was served to the members of the society.

Dr. Dixon gave a very interesting talk regarding the work of the colony.

Dr. Jackson gave a report of a post mortem that he had recently made.

It was moved and seconded that an assessment of \$2.00 per member be made, to be sent to the State Society for use of Dr. Kennedy, and that secretary collect the same. Carried.

Dr. Dixon was asked by the society to act as a speaker on Public Health work as outlined by the U. of M.

Public Health Committee of Tuscola County: Dr. Seeley of Mayville, Dr. Gowen of Millington, Dr. Maurer of Rease, Dr. Sutton of Caro, Dr. Young of Caro.

Society adjourned to April 12, when Dr. Tupper of Bay City is to read a paper.

H. A. BARBOUR,
Secretary.

Book Reviews

DISEASES OF THE EYE. A Handbook of Ophthalmic Practice for Students and Practitioners. By George E. deSchweinitz, M. D., LL. D. Professor of Ophthalmology in the University of Pennsylvania. Ninth edition, reset. Octavo of 832 pages with 415 text-illustrations and seven colored plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

The name de Schweinitz stands at the head of the list of American ophthalmologists. So does the text of which he is author. It comes to us now in its ninth revised edition and with added intrinsic value. The important observations, therapeutic measures and surgical procedures that have been made, recommended and devised during the past four years are incorporated in this new edition. Many footnotes refer to important publications and other references.

In subject matter, method of discussion, in diagnosis, illustration and treatment there is

everything to commend. It is a text that has and will continue as an authority without peer. No eye man, or general practitioner can afford to not have a copy.

INFANT FEEDING. By Clifford G. Grulee, M. D., L. L. D., Associate Professor and Acting Head Department of Pediatrics at Rush Medical College. Fourth edition, thoroughly revised. Octavo of 397 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$4.50 net.

In preparing this small volume the writer has endeavored to do two things: first, to bring our knowledge of the scientific processes which underlie infant feeding up to the present, and, second, to put forth the practical application of these principles in such a way that they can be grasped by one no more familiar with the subject than the practising physician. In doing this he has met with many difficulties and doubtless has fallen far short of his original intentions, but he trusts that the suggestions here made will be found to be simple and yet conform to scientific principles. To one who is familiar with the general trend of pediatric thought in America these views may seem somewhat at variance with the opinions held by some of the leading American writers on the subject, but the views herein expressed not only are substantiated by the personal observations of the writer, but are confirmed by the experience of the leading Continental physicians.

Following the war, there has been a flood of publications in the pediatric literature due to renewed activity on the part of scientific workers and to the publication of work which had been done previous to or during the conflict. It has been the endeavor of the author to cover the literature up to April 1st, 1921. It has been impossible to draw definite conclusions from much of these data and, consequently, the results of these researches have been stated and in large measure, no comment made. The period in question has represented a definite advance in American Pediatrics, with the corresponding decline in European publications. The most outstanding publications have been those of Marriot in his investigations of intoxication and decomposition, and the rather involved system of Infant Feeding devised by Pirquet. The work of the former has great promise, though as yet it would be impossible to predict whether his ideas will be finally accepted or not. As to the latter, it will require some time to demonstrate the practicability of Pirquet's method.

THE HOME CARE OF SICK CHILDREN. E. L. Coolidge, M. D., Professor Pediatrics, Tufts Medical College. Cloth, 341 pp., numerous illustrations. D. Appleton & co., New York.

Detailed instructions in the care of the sick child by the mother at home are given here. The correct care of the sickroom, the child's toilet, amusements, clothing and feeding, are all thoroughly taken up in the simplest possible language. Several different methods of modifying milk are discussed with detailed formulae which every mother should be able to understand. Numerous recipes to tempt the appetite of the sick child are given as well as foods suited best for different diseases in childhood. The care of premature and delicate

babies, the infectious disease, the most common diseases of the digestive tract and nutrition, the most common diseases of the respiratory and nervous systems and special methods of treatment, administering medicines, details of giving different baths and other home treatment ordered by the busy doctor, who has no time to give the object lesson to the mother, that is many times needed, all will be found in these pages.

The book is intended to help the mother become a skilled nurse for her sick child.

It is just the text you want to recommend to mothers to aid you in handling these nutritional cases.

CLINICAL TUBERCULOSIS. Francis M. Potter, A. M., M. D., L. L. D. Pottenger Sanitarium, Monrovia, Cal. Two volumes, cloth, price \$15.00. C. V. Mosby Co., St. Louis, Mo.

It was with some misgivings that this work was first given to the public, for I realized that it was rather encyclopedic in scope and that it dealt with the subject in a manner, and from an angle, which had not been employed by other writers. I relied, however, on the fact that there was no work accessible to English reading clinicians which attempted more than a hurried discussion of the subject; and the searcher for the reason for things was usually disappointed in not being able to find it. It seemed to me that a fuller discussion of tuberculosis than that usually given was desirable; and that a consideration of the tuberculous patient and his treatment from a physiological standpoint was badly needed. Therefore, I hoped that a fairly complete discussion of tuberculosis and its problems might be welcomed. In this, I have not been disappointed, for the work has been accorded a very sympathetic reception.

In this second edition, I have attempted to keep abreast with our advancement. In the chapters on Diagnosis I have incorporated my latest observations on pulmonary reflexes and shown the path through which pulmonary tuberculosis expresses itself in disturbed function in the production of subjective and objective symptoms. The chapters on the Nervous System, in which are found the basic principles for understanding the manner in which the patient reacts toward tuberculosis in the production of symptoms, have been brought up to our present physiological knowledge; and, throughout, an effort has been made to still further emphasize and to more accurately classify the reactions shown on the part of the patient toward the disease. In harmony with the nomenclature adopted in my book on Symptoms of Visceral Disease, the term "parasympathetic" has been substituted throughout, for the term "greater vagus" which appeared in the first edition.

One new chapter has been added, "Influenza and Tuberculosis," which it is hoped will be appreciated by those who are experiencing the difficulties of diagnosis made by our recent pandemic. It is hoped that this second edition will be accorded the same generous reception as the first.

This introduction conveys the scope of this splendid text. It is in our opinion a most complete work, covering the subject so thoroughly that the student reader cannot fail to obtain that degree of knowledge that is so essential for him in dealing with tuberculosis. We recommend this work most heartily.

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Original Articles

HEMATURIA—ITS ETIOLOGY, DIAGNOSIS AND TREATMENT*

ROBERT ROSEN, M. D.
DETROIT, MICH.

In view of all that has been written and the importance of this subject; hematuria, presenting itself as it does in so many various forms should provoke a profound and interesting discussion. The problem of what to do in any given case of urinary bleeding demands a thorough investigation. The pernicious habit of treating this important condition empirically is little less than criminal, and speaks not only of negligence and delay, but is a reflection on our methods and profession.

Though all cases of hematuria are not serious, a sufficient number of them do accompany important lesions, and must be regarded with deep concern. To establish hematuria as a danger signal, warning and pointing to a more or less serious urological lesion, it would be appropriate to suggest this dictum: *Hematuria until proven otherwise indicates a grave lesion in the uro-genital tract.* We cannot well forget in this connection the importance of the amni-present triad of urological pathology, viz. tuberculosis, malignancy, and calculi. Knowing this it is readily understood why procrastination in determining the etiology of hematuria is dangerous. Every aid known to modern urology should be employed to investigate properly and thoroughly this important condition, since only in this way are we enabled to make a correct diagnosis and institute immediate treatment.

The following classification of hematuria will be adhered to and only the important of these will be taken up in detail.

Hematuria may be classified as coming from the:

- A. Urinary tract.
 - (a) Kidney.
 - (b) Pelvis.
 - (c) Ureter.
 - (d) Bladder.
 - (e) Urethra.
- B. Sexual tract.
 - (a) Ejaculatory ducts, seminal vesicals, epididymis.
 - (b) Verumontanum, Sinus pocularis.
 - (c) Prostate.
 - (d) Urethra.
- C. Extra-Genito-Urinary tract.
(Adjacent tumors pressing on the ureter, kidney, or bladder).
- D. Hemophilia.
- E. Drugs.
- F. Parasites.

The urinary tract accounts for probably 80% to 90% of all the cases of hematuria. of these the kidney is the most frequently involved. Next comes the bladder, less frequently the urethra and rarely the ureter. In the sexual tract the verumontanum is the chief cause of bleeding.

Etiologically, neoplasms, (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) tuberculosis, (60, 61, 62, 63) calculi, (37, 38) essential hematuria, (40, 47, 48, 64, 65, 66, 67) and the verumontanopathies, (51, 52, 53, 54, 55), are the chief predominating causes. Trauma (35, 36), foreign bodies (37, 38, 39), systemic and local disease (46), infections, ulcerative lesions (46), drugs, parasites, aneurism varises (40,41), diverticulum (42, 43, 44), syphilis (45, 46, 68), nephritis (41, 48), gangrenous cystitis (46), solitary ulcer (Hunner type), (49, 50), posterior urethritis, purpura (56), nephroptosis, renal solitary cyst (57), and hemophilia are the occasional causes of hematuria.

The character of the bleeding may be acute, subacute, or chronic, and may be intermittent, remittent, terminal or continuous. It may be scanty, moderate, or copious in quantity, depending on the cause.

In addition to the history and physical examination, which often times are quite typical, a thorough investigation of the uro-genital tract is essential. This includes a cystoscopy, endoscopy, urinalysis, blood chemistry, and

*Read before The Wayne County Medical Society, (Mich.) Nov. 28, 1921.

*Read before The Maimonides Medical Society, (Mich.) Jan. 10, 1922.

Wassermann and a radiography of the urogenital tract when indicated. Several examinations may be necessary to determine the exact cause and origin of the bleeding.

KIDNEY

The causes of bleeding from the kidney are in the order of their frequency, (1) tuberculosis, (2) neoplasm, (3) calculi, (4) so-called "essential hematuria", (5) trauma.

Renal tuberculosis is a common cause of hematuria. Kretschmer (57), found renal bleeding in 31.4% of his series of 74 cases. Cecil (59), found hematuria in 95% of his cases. Practically all tubercular kidneys give some history of hemorrhage.

Bleeding coming from the kidney is usually intermittent and may occur at any time. The finding of bloody cheesy particles, the tubercule bacilli with hyperperexia and a focus in some other part of the body should leave no doubt as to the diagnosis. An acid urine containing pus, a few red blood cells and no bacteria, is also very suggestive of tuberculosis. Hematuria with the finding of the tubercule bacilli usually clinches the diagnosis, but as pointed out by Fishberg (31), patients with pulmonary tuberculosis will pass the tubercule bacilli when the kidney is not involved. On the other hand, Braasch (61), has shown that in 69 out of 621 cases of renal tuberculosis, the ureter was occluded. So that the negative smears and guinea pig inoculation failures can be accounted for. The occlusion occurs in 10% of the chronic cases of renal tuberculosis. In his book on pyelography he shows that while the laboratory findings may be negative, a pyelogram showed pelvic deformities peculiar to renal tuberculosis.

In the cases where a tubercular focus exists in the kidney, it may burst into the pelvis and cause a sharp brief hemorrhage. The patient thereafter suffers painful and frequent micturation. It is characteristic of renal tuberculosis too, that, except for a sudden onset which may or may not be marked by hematuria and renal colic, it may continue for months or years without any renal symptoms other than painful frequent micturation and pyuria which is commonly attributed to cystitis.

There is no standardized treatment of renal tuberculosis. Wilboltz (60), showed that 60% of the patients suffering from renal tuberculosis die within the first five years of the disease when surgery is neglected. Of 64 cases treated conservatively all died except two within 10 years. In Blum's 28 cases treated conservatively all died except two within two years and these two were hopeless. Nephrectomy seems to be the method of choice in unilateral cases. Where both kidneys are in-

involved it is contraindicated, though some operators remove the more diseased kidney hoping that the other will improve. My personal experiences with several such cases were most discouraging with any form of treatment.

Neoplasms of the kidney may be benign or malignant. The former includes lipoma, fibroma, myoma, adenoma, etc., and are only interesting in that they may develop into malignant tumors. They escape notice during life and are usually found at necropsy. Malignant tumors during childhood are usually sarcomatous and occur before the fifth year. Of 138 such cases collected by Walker, 116 occurred before the fifth year. Contrary to the formerly accepted opinion, primary carcinoma of the kidney is rare before the fifth decade. The mistaking of mixed tumors for carcinomata is responsible for the large number of cases reported by the early writers occurring in extreme youth. Bleeding in these cases are rare.

Hypernephromata and carcinomata are the common tumors in adults. The former constitute about 80% of the renal tumors (4). Primary carcinoma of the kidney is exceedingly rare. Only 16 cases of squamous celled carcinoma have been reported. The tumor has no predilection for one side over the other.

The three cardinal symptoms of renal tumors in the adult are: (1) hematuria, (2) tumor mass, (3) pain. Albarren and Imbert (1), found hematuria to be the first symptom in 54% of renal tumors, pain in 45%, and tumor in 20%.

Hematuria as a symptom of renal neoplasia is spontaneous and is often profuse, though it may not be of great severity at the onset. The color of the urine and the clots will usually attract the patient's attention.

As the pathology progresses, hematuria becomes more frequent. Free bleeding may precede any involvement of the renal pelvis due to congestion, as a result of pressure from the growth. At this stage there are frequently no symptoms other than hemorrhage. When the pelvis is invaded the bleeding is more profuse. The hemorrhage is not influenced by rest or motion. *Pyuria is rare in renal tumor in contradistinction to its frequency in renal tuberculosis.*

In a study of 83 cases of bleeding due to renal tumors, Braasch (24), found hematuria to have existed in 77% for over a year, was present in 64% of the cases and was the only symptom in 12% of the cases. Albarran (1), reports several cases in which the bleeding antedated the operation 8-10 years.

The urinary findings besides red blood cells may show tumor cells, otherwise is as a rule negative. Given such a typical case, until

proven otherwise neoplasm should be considered. Nephritis may be associated with a neoplasm. A pyelogram may show changes suggestive of such a growth, and a correct diagnosis is possible in spite of the finding of albumen and casts. Cystoscopy may show Fenwicks sign, i. e., a dilation or oedema of the ureteral orifice. Pyelography and the functional tests will determine the diagnosis and prognosis. "Essential hematuria" so-called, acute hemorrhagic nephritis, syphilis, purpura and hyper-tension must be ruled out.

The great cry for malignancy is early recognition and treatment. In no place is this more important than in renal tumors. We should spread this doctrine with equal force to ourselves as well as to our patients. Nephrectomy is indicated in renal tumors when there is no metastasis.

Primary tumors of the kidney pelvis and ureters are rare (12, 13, 14, 15, 16, 17, 18, 19, 20). They are chiefly papillomata and carcinomata.

Hematuria, in these cases is similar to that of renal neoplasm, which is usually the diagnosis made. Treatment is nephrectomy, with excision of the orifice and a margin of the vesical wall when indicated.

There is a type of bleeding which for the want of a better term is called "essential hematuria" (40, 47, 48, 64, 65, 66, 67). Such a condition, like other idiopathic conditions probably does not exist per se. The bleeding is painless, profuse and constant. The urinalysis is negative with the exception of blood.

Recent studies by different investigators have shown that while no gross lesions are found, sections of the kidney showed changes in the cortex. Payne and McNider (64), found a patchy or diffuse fibrosis of the kidney which interfered with the venous return, causing a stasis hemorrhage by diapedesis or actual rupture of the capillaries. Quinby reported similar findings (48). Randall (65), and Spitzer (66), believes there is a passive congestion, Braasch (67), claims there are microscopic calculi and chronic papillitis. Cabot (46) and Fenwick (41), give varicose papillae as the cause. Ellsner, Rytina (47), and others believe localized nephritis is more often responsible. With such a variety of causes of bleeding, we feel that "essential hematuria" as such does not exist, and are only considering it as an entity because it is so spoken of in the literature. A diligent and careful search in these cases will disclose a definite cause. Negative findings only shows our limitation.

Differentiating between these so-called essential hematurias and the bleeding due to an early neoplasm offers considerable difficulty. The finding of casts and albumen is of con-

siderable diagnostic importance in differentiating between nephretic hematuria and neoplastic hematuria. It is well to remember that these two conditions may be associated. A pyelogram will often show changes diagnostic of neoplasm (32). Cystoscopy, preferably during the time of bleeding may be necessary several times before a definite diagnosis is made. In the neoplasm the bleeding is unilateral and profuse while in the essential and the nephritic it is apt to be bilateral and not so severe.

The treatment of these cases have been surgical (64) and non-surgical (47). Geraghty has used silver nitrate 1-5% as a pelvic lavage with success. Adrenalin and mercurochrome has been advised. O'Connor (69), gives the latter preference over a large group of drugs used in an experimental study.

Hematuria occurs in ureteral and renal calculi in about 50% of the cases. The hematuria is usually slight, except after an attack of renal colic, it may only be found microscopically. It is generally increased by jolting, walking and muscular efforts. The urine at such times may be smoky or bright blood may be passed, this however, is uncommon. *The hematuria is influenced by rest in bed to a marked degree so that this is a differential point of diagnosis from tumor where the bleeding is profuse and is not influenced by rest or motion.*

Pain is a common symptom in ureteral calculi which is generally absent in renal calculi.

The roentgenogram is of great value, yet it may be misleading at times. Some stones are permeable to the X-ray and will not show. Injection of the pelvis with some opaque chemical as NaBr, Agl, thorium, etc., may bring out the stone. On the other hand, calcified lymphatic glands, phleboliths, or calcified blood vessels in the course of the ureter has mislead several surgeons to the extent of an operation. If a cystoscopic examination with X-ray and wax tip catheters was done, much embarrassment could be avoided.

The treatment of these cases is removal of the stone when spontaneous expulsion is impossible and dislodgement cannot be accomplished by dilatation of the ureter. Extreme care should be exercised when removing calculi not to leave any fragments to act as new nuclei.

Schlèsingers solution was first used by the essayist in renal colic in 1918 with excellent results. It has been used in numerous other urological conditions where morphine was either contraindicated or had little effect.

Hematuria is occasionally found in nephroptosis. Where the range of motion is con-

siderable, ureteral or circulatory torsion may cause acute congestion, hydronephrosis, Dietl's crisis and hematuria. This condition is mostly found in women on the right side.

Trauma (35, 36) of the kidney causes hematuria from a mild to a severe grade, and is more or less continuous. In some cases occurring several times after the injury. The history of injury with blood in the urine and no casts makes the diagnosis simple. Squire has shown hematuria to occur in 90-95% of these cases. Treatment is rest in bed, morp. sulph. with an ice cap to the side injured. Most of these cases recover spontaneously. Operative procedures is resorted to when hemorrhage is profuse, tenderness and mass is felt in region of the kidney.

BLADDER

The bladder is subject to a number of conditions that cause hematuria, viz. neoplasms, tuberculosis, calculi, solitary ulcer (Hunner type), gangrenous cystitis, syphilis, trauma, and diverticulum. The first three are the most common, the others must be considered to be ruled out.

The *neoplasms* of the bladder, are benign or malignant, the former includes the papillomas, adenomas, fibromas, myomas, etc. Malignant growths includes the carcinomas of the papillary, scirrhous, squamous, or adenomatous type. Sarcoma of the bladder is rare.

Hematuria is often the first, last and only symptom of the bladder tumors. It arises without warning, continues copiously and painlessly. The bleeding may last a day or may continue for weeks. It may cease as suddenly as it starts, and thus give one a false sense of security, while actually the tumor is developing beyond the possibility of help. At times the bleeding may be more or less continuous or intermittent over a long period, the interval being years, and at this time the tumor is found inoperable. Frequent recurrences of bleeding may exhaust the patient so that a transfusion becomes necessary. A profuse hemorrhage of this type is almost pathognomonic of vesical tumor. The amount of bleeding does not depend upon the size of the tumor. A small papilloma may bleed so continuously as to exhaust the patient to the need of a transfusion, on the other hand, a tumor almost filling the bladder may cause little or no bleeding, and occasionally a case with an inoperable growth will give no history of hematuria.

The appearance of the urine depends upon when the examination is made. The color may vary from a bright red, if the hemorrhage is recent, profuse and freshly voided, to a dark chocolate color if it is retained in the bladder. The bleeding may be more profuse at the end

of micturation. Between the periods of bleeding, the urine may be normal or show only microscopical or chemical evidence of blood. At times the patient may bring in little pieces of tumor, large enough to make sections for microscopical study to determine its malignancy.

In Albarran's (1), 200 cases of bladder tumors, hematuria was the first symptom in 148 cases (74%), Geraghty (6), found hematuria the initial symptom in 60 out of 67 cases of papillomata, i. e., it was the initial symptom in 77% of the cases. Lower (20), gave hematuria as the chief symptom in 95.5% of his series of 210 cases of vesical tumor.

Cystoscopy alone will determine the presence or absence of a neoplasm of the bladder. It will not only determine the presence or absence of a vesical growth, but will also show the location, size, appearance, number and in some cases the benign or malignancy of the growth can be determined and the necessary form of treatment outlined. The presence in the papillae of necrosis or edema, and the encounter of the sessile type tumor is usually indicative of malignancy.

The cystogram using air or chemicals has been used as an aid to the diagnosis of bladder tumors.

In spite of the notable advances in the treatment of bladder tumors, the true solution has yet to be found. Surgery, fulguration, and radium have been tried. These have failed in the hands of some, and succeeded in others. One type of neoplasm will yield to electrocoagulation while others will be aggravated by it. The trend of opinion of today is unquestionably to consider as malignant the majority of papillomata and that ultimately all benign papilloma tend to become malignant, i. e., they are the precursors of cancer.

In 1910 Beer introduced the high frequency current in the treatment of these tumors. Brilliant results have been obtained by it in properly selected cases.

Owing to the proclivity of even benign neoplasms to recurrences and implantation, the results of the incisional operation were so discouraging as to lead to a discontinuation in several clinics. Gardner (8), found recurrences in 96 cases or 36% of benign papillomata following the incisional operation, while in 61 cases treated by the fulguration method, the recurrences were reduced to 13.1%. Recurrences will follow a certain percentage of cases regardless of the form of treatment, especially if the tumor is far advanced. This is less when fulguration is used. As pointed out by Geraghty (6), the recurrences following fulguration are simple and readily respond again to this form of treatment, while the in-

cisional type of recurrences is multiple. Resection is however, indicated when the tumor is of such size that it can be removed completely, even if the ureter has to be transplanted in doing so, this is contra-indicated however if the vesical orifice and the prostate has been infiltrated by the tumor. The endovesical treatment is the method of choice in benign growths, using the unipolar (Oudin) or the bipolar (D'Arsonal) current, supplemented with radium in doubtful cases. When fulguration stimulates a growth it may be considered malignant as suggested by Geraghty. Excision or resection should not be practiced in benign papillomata except when intravesical treatment is impossible or very difficult, in such cases a cystotomy will bring the tumor under direct vision and fulguration cauterization or radium may be applied. This procedure is resorted to in the hopeless cases to relieve the distressing symptoms.

Judd and Sistrunk (26), had a mortality of 12.9% in 184 carcinomatous cases. (202-18). Judd feels that this can be reduced to 10%. Radium, he feels, should be reserved for the inoperable cases as his experiences with it have not been favorable, and that fulguration should be used in benign tumors. These figures show the value of an early cystoscopic examination for diagnosis, when the neoplasm is still papillomatous. When this is neglected as is so often the case, carcimona is encountered which is relatively hopeless.

Joseph (70), claims to have obtained results by applying trichloroacetic acid to soft papillomatous growth through a ureteral catheter, which is directly against the neoplasm. Doing this at three weeks intervals.

Syphilis (71, 72, 73, 74), of the bladder during the secondary and tertiary stages may simulate a neoplasm so that it is well to take a Wassermann in all cases of vesical bleeding.

Tuberculosis of the bladder is generally secondary to renal or genital tuberculosis. The symptoms are often indistinguishable from the ordinary cystitis. The diagnosis is made by the finding of the tubercle bacilli and the cystoscopic picture. These are pathognomonic of the disease.

The hematuria is often the symptom that attracts the patients attention. The bleeding may be slight, spontaneous, and sometimes a few drops of pure blood follows the red colored urine. *It differs from the bleeding due to stones or foreign bodies in that it is not influenced by rest or motion, and from hematuria of neoplasm in that it is seldom profuse, intermittent, or painless.* The urine is acid and contains pus cells and occasionally only microscopic blood is found.

Frequent and painful micturation both day

and night is the most common complaint. As the disease progresses to ulceration and contracture, the desire to void becomes almost constant, which is uninfluenced by rest or motion.

The treatment of tubercular cystitis is most discouraging. The primary focus must be determined and removed. Drug therapy is a failure. Silver nitrate and irrigations are contraindicated. Mercuric chloride, phenol, oleo gomenol, thallin sulfate, mercurochrome and the distending of the bladder with air all have their advocates. Have tried them all with failure as a reward. Hygienic treatment, proper food, tonics, heliotherapy, rest, and air are the essentials to build up a good resistance. Operation is only indicated when every thing else has failed. The patient should be warned before the operation of the possibility of a permanent fistula and also that the symptoms may not be relieved. The supra-pubic wound will allow a thorough inspection of the vesical wall and the ulceration can be curetted or destroyed by the cautery or fulguration.

Hematuria due to vesical calculi is caused by the mechanical friction and the scratching of the calculus and is most pronounced when the bladder is congested as in cystitis. It is aggravated by motion and is more apt to be terminal in character associated with tenesmus. Often the blood is found only microscopically. Pus and albumen is present in the urine. Stones may exist a long time in the bladder causing little or no symptoms, especially is this true of prostatics and patients with diverticulum.

The diagnosis is made by finding the stone with the cystoscope and the X-ray picture will show up most of the vesical calculi.

The form of treatment will depend upon the presence of complications as diverticulum, tumor, foreign body, etc., when a supra pubic cystotomy is indicated, otherwise a litholapaxy should be done.

URETHRA

The conditions in the urethra causing hematuria are numerous (51, 52, 53, 54, 55). Papilloma, polyps, ulcers, granular urethritis, strictures, syphilis, tuberculosis, trauma, foreign bodies, infections and the verumontanopathies may be cited as the chief causes. The cysto-urethroscope or the endoscope is used to differentiate these conditions and the appropriate treatment applied.

Bleeding of these cases varies from a few drops terminally of pure blood to a chocolate colored urine with clots, similar to that seen in vesical tumor. Cystoscopy was done in several cases because a neoplasm was suspected. The bleeding was seen to come from the posterior urethra, and an endoscopy later showed

the utricle was responsible for the bleeding. These cases are exceedingly interesting and gratifying, first, because of the serious outlook, and secondly because of the rapid removal of symptoms after the proper therapeutic application.

The treatment in these cases depends upon the pathology found. For growths, fulguration will give the best results, for congestions, granulations, ulcerations, hypertrophy, silver nitrate is still the drug par excellence.

DISCUSSION

Kretschmer from a study of 238 cases of "blood in the urine" believes that with a few exceptions, it means the presence of an organic lesion in the urological tract. Analysis of his tables shows neoplasm to be the chief single cause of hematuria. Vesical tumors were responsible in 60 cases (30%). There were 33 cases of renal tuberculosis and 12 cases of renal neoplasm. There were 99 cases (50%) in which hematuria was traced to tumors.

THE AUTHORS CASE REPORTS

Lesions	Cases
Renal tuberculosis	1
Renal tuberculosis (bilateral)	1
Renal Calculus	1
Renal Trauma	1
Hypernephroma	1
Nephritis	1
Pyelitis	1
Vesical carcinoma	1
Vesical papilloma	1
Vesical tuberculosis	3
Vesical calculi	1
Vesical syphilis	1
Verumontanopathies	8
Undiagnosed	3

Analysis of the essayist small series of 25 cases shows neoplasms responsible for hematuria in three cases (12%). Tuberculosis was the cause in five cases (20%), and the verumontanum in eight (32%). There were two cases of calculi (8%), the other four cases were equally divided between renal trauma, nephritis, pyelitis and syphilis. The three undiagnosed cases were cystoscoped and seen only once. One was a colored woman in whom a tentative diagnosis of tubercular cystitis was made. The second case we believed to be a renal tumor, and the third undiagnosed case of hematuria was probably due to a left renal tuberculosis.

SUMMARY

From this the importance of an early diagnosis is at once apparent. One need only consider the frequency of neoplasms and tuberculosis, and, how much an early diagnosis in these conditions mean to the patient. Let us do away with vague and indefinite methods used in the treatment of hematuria and make accurate diagnosis instead. Let us not

prescribe drugs and wait for the bleeding to stop. With the modern methods of diagnosis the exact cause of urological hemorrhage is possible to be made in all but a few cases, and in the patients interest this should be determined immediately. It may be necessary to resort to all facilities at our command before a definite diagnosis is reached. Only then can any rational treatment influencing in any degree the progress of the malady be instituted.

CHALMERS BLDG., 25 PARSONS.

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PHLEGMONOUS GASTRITIS

Report of a Case

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Patient, Mrs. T., age 34, admitted to Evangelical Deaconess' Hospital, October 26, 1921, with history of present illness as follows:

Past History—Married woman, age 34, four children living and well. No miscarriages, menstrual history negative. Last menses two weeks ago. Had diseases of childhood, typhoid fever 20 years ago, pneumonia 16 years ago, and again six weeks ago. There is no past history of stomach trouble. October 16 she had a severe attack of tonsillitis, in bed two days with temperature 102, pulse 116.

October 23 patient complained of a slight pain in epigastrium, and distress in stomach, 11 p. m. October 24, developed a sudden excruciating pain in left forearm from elbow to wrist, relieved by hot applications. The third morning 10 o'clock patient complained of a sudden severe pain in epigastric and left hypochondriac regions and vomited. Dr. D. J. Leithauser, her physician, was called. He found patient acutely ill, temperature 103° pulse 120, resp. 30, some slight rigidity with marked tenderness one inch above umbilicus. The following day general condition the same except for frequent vomiting of bile, no blood; severe aching pain in epigastric and hypochondriac region, rolling sensation followed by retching vomiting, which seemed to relieve patient for a short time.

Oct. 26, blood count total, white 55,000, poly morphonuclear 95%, urine negative. The author was called in consultation. The positive findings were distention and tenderness, slight rigidity in epigastrium, probable mass in region of gall bladder, tongue coated, face flushed and slight lividity as in pancreatitis. Temperature 102, pulse 120. With the above history and findings a provisional diag-

nosis of acute cholecystitis with gangrenous mucosa was made.

Operation Oct. 27, under ether anesthesia. Peritoneum opened, thin translucent exudate over pyloric end of stomach, gastro-hepatic and great omentum. Gall bladder inspected, normal color, not distended, no palpable stones. Appendix inspected, no evidence of acute inflammation. Pyloric end of stomach, for a distance of 2 inches on both the greater and lesser curvature intensely injected, firm, wall. On account of the evidence of very acute inflammation, gastrotomy was performed. Muscular coats four times normal thickness. Submucosa 1 centimeter thick, pale, oedematous, having the appearance of a phlegmon. Culture was made, section taken. The mucosa injected and about normal thickness. Mucosa sutured with continuous chronic cat-gut. Muscular layers closed with interrupted sutures. Omental pad sutured over gastrotomy wound.

Pancreas examined, slightly enlarged. There was no evidence of fat necrosis in the omentum. One cigaret drain down to the site of opening in stomach. Pad count correct, peritoneum closed with continuous and interrupted sutures. Fascia united with interrupted sutures, and 5 silk worm sutures. One piece of gauze in lower angle of wound.

Post Operative Notes—Morphine freely, Murphy drip, nothing by mouth.

First day. Temperature 100, pulse 88. Third day small quantities of water and later placed on liquid.

Third day removal of drain. Wound showed slight infection.

Twelfth day, patient developed phlebitis in left long saphenous vein.

Fifteenth day, acute stabbing pain in left axillary region, about eighth rib—no dyspnoea, or consolidation or rales.

Fifteenth to 28th, gradually improved.

Twenty-eighth day, following an enema at 5 p. m. patient suddenly seized with very severe pain in left chest, dyspnoea, cyanosis, rapid pulse, general shock, rallied slightly under stimulation, strapping chest and oxygen. Heart weakened and patient died 15 hours later. We were unable to secure permission for an autopsy.

Cause of death, pulmonary embolism.

OPINIONS

Gastric pathology was probably due to septic embolus following tonsillitis, followed by phlebitis in left saphenous vein on the 12th day. Fifteenth day, small pulmonary infarct. Twenty-eighth, large pulmonary embolism.

In "Surgery of the Upper Abdomen" by Drs. Deaver and Ashurst, will be found report of operations on patients with phlegmonous gastritis.

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Operations	Cases	Deaths
Exploratory	4	3
Gastrostomy	1	0
Gastro-jejunostomy	1	0
Partial Gastrectomy	4	1
	<hr/> 10	<hr/> 4

LOCAL ANESTHESIA IN HERNIOTOMY

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 CALUMET, MICH.

Local anesthesia for inguinal hernia has become so much a routine in our practice at the C. & H. Hospital that I thought a discussion of the subject might be of interest.

Local anesthesia in inguinal hernia is that of the nerves of the region which are both motor and trophic as well as sensory. Division of an important nerve may be followed by muscular atony and relaxation of the parts, by a recurrence of the hernia, or, an unpleasant sagging of the scrotum in case the cremaster muscle is paralyzed by division of the genital branch of the genito-crural nerve, or, a possible atrophy of the testicle. Under local anesthesia we take greater precautions even than under general anesthesia, as we are forced to recognize and respect each individual nerve. There are three with which we are principally concerned, the ilio-hypogastric, which perforates the transversalis muscle at its posterior part, near the crest of the ilium and gives off its iliac branch, which descends; the hypo-gastric branch continues forward between the transversalis and internal oblique, perforating the latter just above and to the outside of the internal ring. It then runs toward the middle line on the surface of the internal oblique and just above and a little to the outer side of the external ring pierces the aponeurosis of the external oblique and is distributed to the skin of the hypo-gastric region. The ilio-inguinal nerve appears in the field after perforating the internal oblique at or near the internal ring and descends along the lower part of the inguinal canal; it terminates by distributing fibres to the side of the scrotum and thigh. The genito-crural nerve appears at the internal ring and passes down the back part of the spermatic cord into the scrotum, where it supplies the cremaster muscle, testicle and

other contents of the scrotum. It will be seen from the above that after the skin is passed all nerves entering the field emerge at or near the internal ring and it is consequently here that we inject most of our solution.

The method we use we inherited from Dr. Sharpe and it was the fine results he secured in a long series of cases that determined our endeavor to follow in his footsteps.

Preparation—the patient receives an enema the night before and another in the morning before operation. Preliminary hypodermic of morphine, S. Gr. $\frac{1}{4}$ and hyoscine Gr. $\frac{1}{100-45}$ minutes before operation. Skin including all hair on pubes and scrotum is carefully shaved, washed with ether and painted with Tr. iodine $3\frac{1}{2}\%$, after which the infiltration is begun, using three sizes of needles and $\frac{1}{2}\%$ boiled sol. of novocaine to each ounce of which 4 drops of a boiled 1-1000 solution of adrenalin chloride is added. Some use as little as $\frac{1}{4}\%$ solution of novocaine. Instead of injecting the solution in a haphazard manner, it is advisable to have a systematic procedure and follow it carefully. The following is the method we pursue.

Using a small needle make a wheal in the skin only, 2 finger breaths inside anterior superior spine of the ilium; using a longer needle insert it through the center of this wheal and straight downward until with a sudden jump it penetrates the fascia of the external oblique muscle and inject 5 c. c.; without withdrawing needle refill the syringe, direct the needle outward and, forcing out the fluid ahead of the needle, inject 5 c. c. under the fascia until the needle strikes bone, the ilium, to anesthetize the ilio-inguinal and ilio-hypogastric nerves; with a longer needle penetrate the fascia at the same point and inject 10 c. c. ahead of the needle under the fascia downward toward the pubis and toward the middle of Poupart's ligament forming an angle including the upper half of the operative field; withdraw needle until it is under skin only and inject 10 c. c. in same two directions under skin only. This finishes the upper part of injection. Now make a skin wheal at symphysis; with a longer needle pass directly downward injecting 5-10 c. c. until needle strikes the spine of the pubis; withdraw needle a little and inject in a fan shaped direction along the spine and outward to include structures of cord; withdraw, change to long needle, pass it downward just above spine through fascia and inject 10 c. c. under fascia meeting injection from above; again inject 10 c. c. under fascia, meeting

outer line of injection from above; then pull needle nearly out and inject 10 c. c. under skin in same two directions, completing the diamond shaped portion of operative field. The usual operation calls for about 2 ozs. of solution, but up to 6 ozs. may be used.

If the subject is very fat or if the hernia cannot be reduced or if the operator feels nervous about the danger of injecting a vein, the skin and subcutaneous tissues alone may be injected first and the injections made by sight under the fascia upward and downward, around the exits of the ilio-inguinal and ilio-hypogastric nerves and around the cord structures *after* the skin and superficial fascia have been incised and laid wide open to view. This method somewhat delays the operation, but is probably safer in some cases. If the nerves are of good size and easily recognizable, a drop or two of solution may be injected with a fine needle directly into them. It is our custom to throw a small piece of gauze packing around them with a light forceps fastened to the gauze for the purpose of pulling the nerves aside, insuring their recognition at all times and preserving them from damage as the operation proceeds. At any time during the operation, any sensitive spot or area may be injected. Those especially needing it occasionally being the structures of the cord and the neck of the sac when pulled on. A few drops of the anesthetic solution injected into the neck of the sac just before the sac is brushed down with gauze and ligated or sutured is often advantageous or necessary. We are convinced that it adds to the safety of the above described injections, if the operator will always be careful to be injecting as the needle is advanced as the column of fluid ahead of the needle bluntly separates the tissues and prevents damage, especially to blood vessels, by the needle point.

The absence of post-operative vomiting is one of the great advantages of the local method of anesthesia, for vomiting if prolonged and severe may compromise the results of the operation by loosening sutures and favor a recurrence of the hernia. This is particularly liable to be the case in large or complicated hernias. The size of the hernia is no contra-indication nor is the age of the patient, providing he is enjoying fairly good health, in fact old age is particularly favorable to all local anesthetic procedures. Many of these old subjects may be refused operation by general anesthesia when they can be safely and easily operated upon by the local method. It is advisable that these old patients be put to bed for a day or two

before operation to see how they stand confinement and to enable them to learn to empty their bowels and bladder in the recumbent position. Further, nutrition is not interfered with as there is no disturbance of the gastro-intestinal tract. A light meal may be given just before the operation with liquids freely afterwards and if the patient is feeble stimulating drinks such as coffee, tea, wine or spirits may be given during the operation.

We have operated 22 inguinal hernias since December 1, 1920, in 21 of which the method was entirely successful. In one case the patient became very restless toward the end of the operation and was given another hypodermic of a sixth grain of morphine, after which he quieted down and the operation proceeded. In only one case was it necessary to resort to ether. A hernia of many years standing had become strangulated the night before. After an hour or two it was reduced by taxis. At the operation the following morning, all went well under local anesthesia until the empty sac was opened when the patient suddenly strained and pushed out through the hernial opening a very large handful of intestines, which could not be replaced until he was relaxed by ether. Undoubtedly the strangulation had rendered the peritoneum more than ordinarily sensitive as the peritoneum of the sac was greatly congested and watery and darker than the parietal peritoneum. Possibly by injecting more of the novocaine solution into the sac and its neck we could have gotten along, but relaxation under ether seemed to be wisest at the time and at that the patient needed only a small quantity.

Our last case, a man aged 65, developed a mild lobar pneumonia with bloody sputum a few days after operation, which subsided in about a week. If he had had ether, we would have considered this a case of ether pneumonia and he quite possibly might have died.

Novocaine is probably the best and safest local anesthetic yet introduced for this class of work. It is absolutely un-irritating to the tissues and when combined with adrenalin fully equal to cocaine in its anesthetic action though somewhat slower and about seven times as safe as cocaine. In none of Dr. Sharpe's cases, or my own, was there any systemic reaction which could in any way be ascribed to the novocaine. Practically every one of my 22 cases had a serous discharge which appeared on about the

seventh to ninth day, continued for from 3 to 10 days and ceased without treatment other than once a day change of gauze. In no case was there any suppuration. This condition is common in abdominal operative wounds made under general anesthesia so I am not sure that the local anesthetic had anything to do with this discharge appearing as it did. All cases, except the one with pneumonia, had a smooth convalescence. While some undoubtedly had some pain at some time during the operation, I think the morphine and hyoscine dulled the memory of this pain and even those who squirmed a little on the table said afterward that they had had no pain during the operation.

An operation under local anesthetic takes more time than under general as we must work more slowly and handle the tissues more gently. We do not need to hurry for fear our patient will get too much anesthetic, consequently we can work carefully and thoroughly. We prefer the Bassini operation in which the cord is brought out at the upper angle and the internal oblique and conjoined tendon sutured below the cord to the shelving portion of the Poupart's ligament with No. 2 chromic catgut. Dr. Sharpe carried both ends of his sutures through Poupart's and tied the knot on the external surface of the ligament. We then suture the internal pillar of the external oblique aponeurosis to Poupart's ligament over the cord and lap the external pillar over with No. 2 plain catgut sutures, with silkworm gut for the skin.

This filtration method is equally applicable to hernias situated in regions other than the inguinal canal. We successfully operated for umbilical hernia of many years standing two women each over 70 years of age, who would have been poor risks for general anesthesia.

ACUTE MASTOIDITIS OCCURRING IN MICROTIA

DON A. COHOE, M. D.
DETROIT, MICH.

Most all of us are much interested in the mediocre cases that come to our attention, but the unique ones are doubly interesting.

There came into my office one day last June a girl 20 months old with a congenital microtia on the right side. There was no helix or anti-helix as is shown in the photograph. The appendage which is most prominent is apparently the lobula and anterior to that is a slight depression and then an ele-

vation which I called the tragus. There was no external auditory canal.

The child had a negative history up to five weeks before I saw her. She had recently had an attack of Scarlet fever associated with an acute abscess of the left middle ear with its usual rupture of the tympanic membrane and its flow of pus which ceased after about ten days. The left ear was normal in every way when I examined her.

There was a circumscribed area over the right mastoid bone, about the size of a 25-cent piece, which was red and elevated and also fluctuating. I observed the case for 24 hours before operation.

The usual incision was made as accurately as possible and a large amount of pus was



evacuated. The outer wall of the mastoid bone was fairly thick and the antrum was filled with granuloma and some pus. The cavity was easily curetted and the antrum was easily probed. The posterior wall of the bony canal was very sloping and there was no marked ridge. An incision was made over the depression which was most marked by finger pressure and the knife was extended deeply into the tissues to determine the presence of a tympanic membrane. Dense tissues were encountered, rather fibrous in character and no tympanic membrane was found.

The mastoid cavity was very deep and in-

structions were given to the anesthetist to watch for facial twitchings.

The wound was packed as usual with iodoform strip and at the end of 36 hours there was a marked facial paralysis of the right side. The packing was removed immediately, but the paralysis continued for three weeks and then disappeared entirely.

I might say that although the patient was found on the second morning with the index finger of the right hand deep in the mastoid wound, the patient was discharged on the nineteenth day.

Wasserman examination of the mother was negative. X-ray report was also negative.

There is probably one important thing in connection with this case and that is the role which the Eustachian tube plays in middle ear infections.

A search of medical literature on the subject of microtia with suppurative mastoid involvement has been made, but to no avail. Perhaps I shall have the pleasure of hearing from some one who has had the good fortune of having had a similar case.

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES.

III—OBJECTIVES IN FUTURE PUBLIC HEALTH

JOHN SUNDWALL, Ph. D., M. D.

Professor of Hygiene and Director of the Department of Hygiene and Public Health. University of Michigan, Ann Arbor, Mich.

In the previous articles, the following points were emphasized: Our past public health interests and activities were concerned chiefly with the control of the environment—sanitation. Our future public health efforts are going to be focused more and more on the person. Indeed, ninety per cent or more of future public health work will deal directly with people. For we have learned that man himself is the source of practically all of our common infectious diseases, that the infectious agents—germs—leave his body in his discharges and that these germs are "passed on" to the next person through close social contact. The prevention of disease then becomes a problem of "cleaning up" the sources of diseases and of blocking the routes taken by them in their spread.

But the prevention of disease will be only a fraction of the future public health's concern.

What America needs today is strong, active and vigorous men and women. Preventing communicable diseases alone will not produce this want. The dismaying revelations of the draft examinations wherein one-third of our young men failed to pass the tests for physical fitness and the deplorable findings of numerous physical examinations of groups in all ages of life, assuredly point

out the fact that we must concentrate our efforts more and more on building up sound, active, vigorous and harmoniously developed bodies. Not only is such a procedure essential to the happiness and success of the individual, but it is of serious economic, social and national concern.

Let us see what will happen forty years hence to one hundred physically sound young men at the age of twenty-five. Bear in mind that this group includes only those who can pass the tests for physical fitness. It does not include the third that failed to pass. At the age of sixty-five—forty years hence—sixty-four will be living. It is possible to prognosticate the economic conditions of these sixty-four living men as follows:

One will be rich.

Four will be well to do.

Five will be supporting themselves through their own efforts, salary or wages.

Fifty-four will be dependent, wholly or in part on relatives, friends or charity for life's sustenance.

These figures are furnished by Dryden after extensive analysis of morbidity and mortality reports. While perhaps the discouraging economic conditions of the vast majority of those who will be alive at the age of sixty-five cannot be laid entirely at the door of health, still health plays an enormous role in the economic affairs of our people.

At any rate this table shows the stupendous wastage of human lives during that span of life when communicable diseases play a minor role as a cause of life's devastation. Ignorance of the fundamental laws of right living and neglect of the

body and its functions are in the very largest measure responsible for life's failures.

"Seeing to it" that each individual making up our social units is given every opportunity, is encouraged and is even compelled to build up a sound body and maintain the highest physical efficiency possible, is a broad, comprehensive and difficult program indeed. In order to achieve this newer and widespread objective in future public health interests and activities, many parallel roads must be traveled. There is no single short cut route. Many highways lead to Hygea and all must be traveled.

Future public health must, therefore, be interested in eugenics, better maternity hygiene, furtherance of infant welfare, development of school hygiene, including physical education. It must be concerned with the conservation of the health of adults, for they are of most value to society. Already industry has learned that human conservation is even better business than machine conservation. To all of these age periods—infant, school and adult, the fundamentals of health promotion and disease prevention must be applied.

Indeed, one may define future public health as all those interests and activities concerned with the saving of human beings from death, illness and incapacity through the prevention of diseases and the preclusion, in so far as it is possible, of the various hazards of life; the building up and maintaining of sound, active, vigorous and harmoniously developed bodies whereby the individual may carry on his economic burdens and social duties with enjoyment to himself and entire satisfaction to the society in which he lives. That he may make the proper social adjustment, and serve society to the utmost of his capabilities, public health interests must include a mental hygiene program whereby people will be taught to think better, act better and live better than they do now.

"THE THREE ERAS"

"In the development of the modern public health movement it will greatly aid our comprehension if we conceive it to have developed in three fairly definite eras or periods, always bearing in mind that by the use of these terms we simply indicate the shift of emphasis, not that all the problems of the earliest era in point of time were solved before the others began to grow in significance.

"I will call these three periods—

"(1) The Era of Sanitation. Roughly, from 1850 to 1880.

"This era was principally concerned with environment. Its keyword was 'environment.' Its typical exponent in the public health ranks was the sanitary engineer.

"(2) The Era of Infectious Disease Work. It began roughly about 1870 and was in full sway largely overshadowing all other public health concepts for about thirty years.

"This era was principally concerned with bacteriology. Its keyword was the 'the germ.' Its typical exponent was the laboratory research worker.

"(3) The third era is just beginning. It may be called the Era of Hygiene. It marks a return to first principles.

"This era is principally concerned with the human machine, the person. Its keyword is 'education.' Its typical exponent is perhaps the public health nurse.

"It greatly helps us to comprehend the present status of public health development to realize that

both the earlier of these eras accomplished great things; that at the height of their vogue many of their most eminent exponents seem to have largely confused their special and limited possibilities with those of the entire field of public health; and that they have fixed certain definite misconceptions upon the public mind that very greatly hamper the development of an intelligent concept of the significance of the health problem as a whole by millions of public-spirited people.

"To the wonderfully beneficent results of modern water supply and sewage and waste disposal methods may partially be traced the persistence of the idea that filth in and of itself can create disease, especially communicable disease, with all the handicap this imposed upon the second era in getting a fair show to demonstrate what can be accomplished by the control of the germ."

*From "The Modern Health Movement," by Eugene R. Kelley, M. D., State Commissioner of Public Health, Massachusetts. The Common Health, Nov.-Dec., 1921, page 260-261.

MEDICAL MISFITS

There are two classes of medical men who are not helpful and are hard to assimilate. They will not co-operate and are an absolute hindrance to progressive medicine. These are the medical broker and the medical croaker. The first is one who is out for gain at any cost, regardless of hardships and inconveniences to fellow-beings. He takes much but gives little. He cares nothing for public opinion in matters of equity and community welfare, or professional advancement; cares nothing for what you think of his methods. He is aggressive domineering, hypocritical, pretentious and strutting; a friend to your face, a traitor to your back. Meet him in consultation, he is the chief actor, working well up-stage. When you depart, he will remain or return and take advantage of your absence. Meet him alone and he is suspicious. Crowd him into a corner, you will behold a frightened, trembling, apologetic, cowardly crook. Better get him then, or he will try to get you later. He belongs to most of the medical societies, but never attends; does not permit his dues to become delinquent for reasons quite obvious. Avoid him. His selfish ambition has hardened his heart. You are better than he and he knows it.

The medical croaker—he neither hinders nor helps. He would not be missed, yet you wish him no harm. What the majority are for, he is against. You are in the wrong, he is always in the right; never succeeds well and admits it, but it is not his fault; takes no part in discussions at society meetings, but does a lot of barking and criticism in private; makes a great fuss and flurry about weak medical laws and wonders what is the matter with the profession, but does nothing himself but rant.

He is strong on the laymen, but weak on the medical brethren. Belongs to no medical societies—the A. M. A. is a trust; prefers proprietary medical literature to standard medical journals; profane against quackery, but will sign a death certificate for a chiropractor.

Don't be a broker. Don't be a croaker.

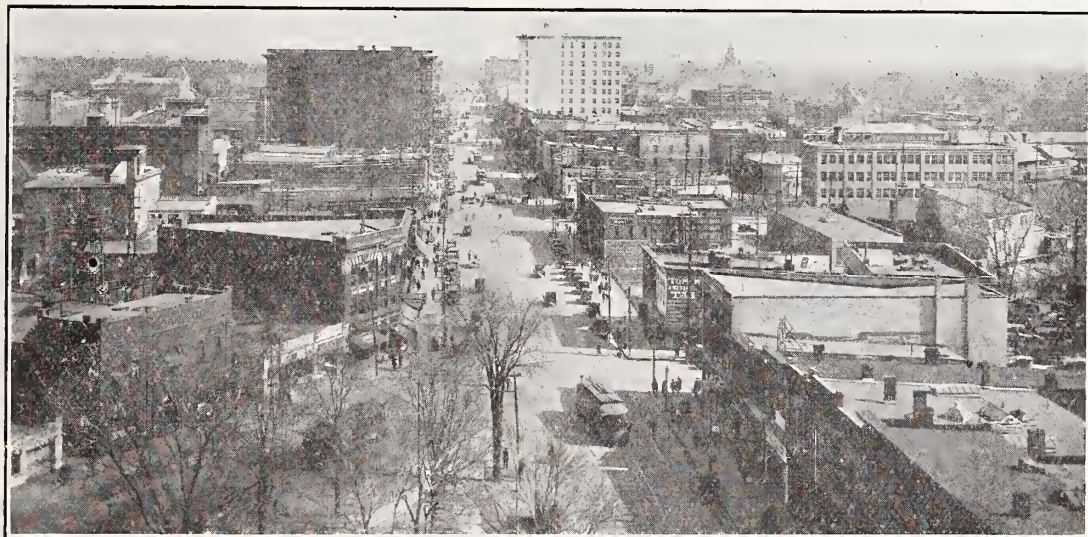
—Hollis, Journal Indiana State Medical Society.

Flint, Michigan

Our Convention City

and

Genesee County Medical Society



SAGINAW STREET, LOOKING SOUTH FROM HOTEL DURANT

Flint today stands prominent and unique among the the larger cities of Michigan, a city of achievement, marvelous growth and solid prosperity. In twenty years it has grown from a hamlet of 15,000 to a metropolitan community with its diversified industries, civic development and commanding influence. It is the "Wonder City of America."

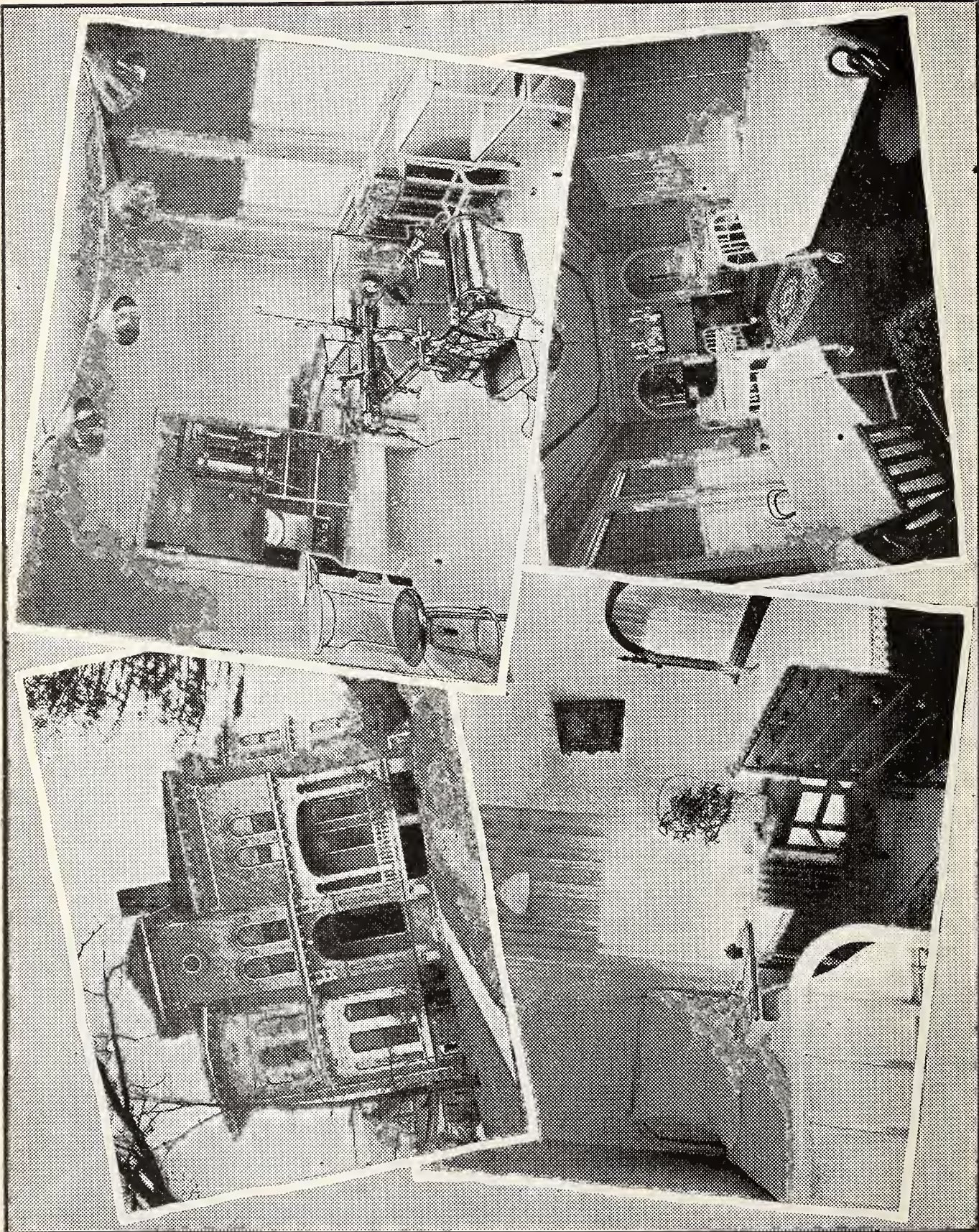
The first settlement was made in 1820. Flint was incorporated as a city in 1855 with a population of 2,000 and the county seat of Genesee County by an act of the territorial legislature, August 25, 1835.

Manufacturing in a small way marked the early period of the city's history. The lumbering industry grew rapidly and during the sixties and seventies was one of the chief industries. Then in 1869, W.

A. Paterson started the first carriage factory. Later, in 1896, W. C. Durant and J. D. Dort started the manufacture of a patent road cart which developed into one of the largest carriage factories in the country. With the development of the carriage industry subsequent concerns sprang up making



HOTEL DURANT



ST. JOSEPHS HOSPITAL

necessary parts used in the manufacture of carriages.

The manufacture of automobiles was inaugurated in 1910 by the Buick Motor Company. The growth of this industry has steadily increased until at the present time Flint is the second largest automobile center in the world, being the home of the Buick, Chevrolet, Dort, and Paterson. In addition there are many accessory plants such as the nationally known Champion Ignition Company, Marvel Carbureter, Imperial Wheel, Flint Motor Axle, Flint Varnish and Color Works, and the W. F. Stewart Body Company, with a new diversification in the Perkins Structural Steel Co., and the Arnold Automatic Gauge Co. As a result of the phenomenal industrial development Flint has increased in population 138 per cent in the last ten years.

Two trunk railroad lines and electric inter-urban systems connect the city with other communities in the state. The right of way for an eight and one-half mile cut off on the Pere Marquette has been secured and work of construction began last June. This extension opens up for industrial development 1,000 acres on the east side of the city, insuring future industrial expansion.

During 1920, Flint made remarkable progress in comparison with other cities in meeting the building and housing situation. In the matter of one-family dwellings, Flint occupies fourth place with a total of 2,000 dwellings, being passed only by Los Angeles, New York City and Detroit.



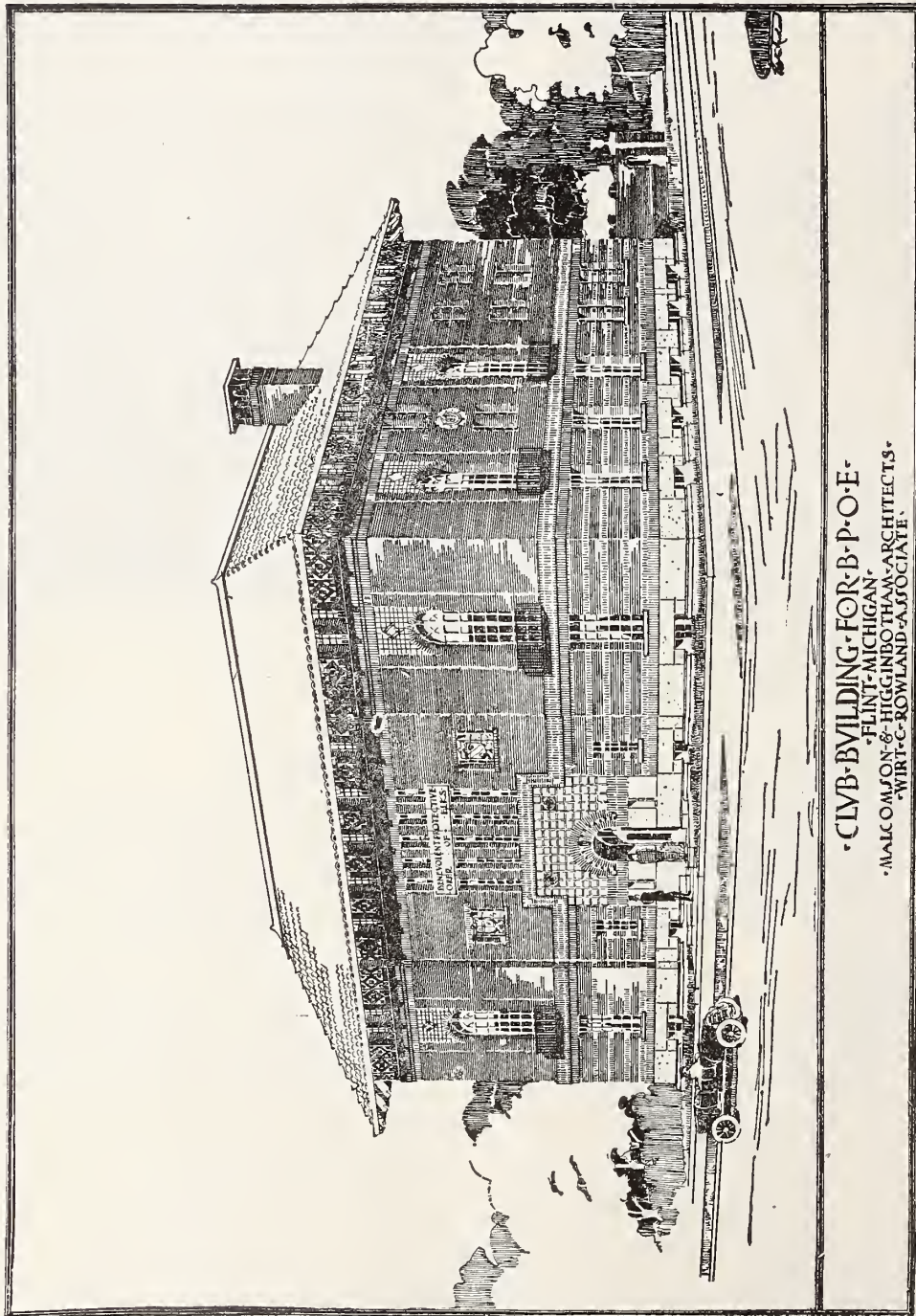
GENESEE BANK BUILDING

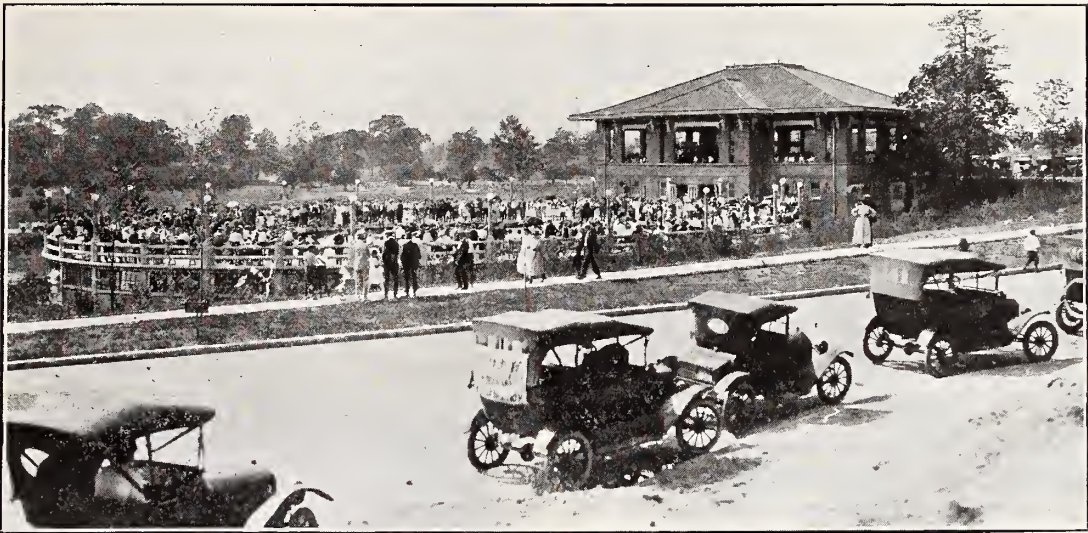
There are thirty-six churches of various denominations in the city, all well housed in modern equipment.

The Health Department of the city is without doubt one of the best organized in the state. One full time health officer, two assistants, five dentists, and eight nurses look after the hygiene, care and treatment of indigent cases. In addi-



COUNTRY CLUB





BEARSLEY PARK SWIMMING POOL



HURLEY HOSPITAL



CLARK SCHOOL

tion to the above, clinics for all cases are conducted daily. Some of the latter work being supervised by regular practitioners and specialists, who volunteer their services.

Hurley Hospital is equipped to handle nearly all cases. It has a capacity of 125 beds. The plan of its organization has recently been changed to give it a class "A" rating as required by the American College of Surgeons. A nurses training school is connected with the institution. Through the vote of the taxpayers Hurley Hospital is to be enlarged. The total sum voted on was \$1,500,000. This will give a capacity of 500 beds.

St. Josephs Hospital has been in operation for one year. It is modernly equipped with 50 beds and fills a long felt want in the community.

The Women's Hospital, devoted largely to maternity cases, will soon enjoy the advantages of a new and larger building, the citizens of Flint having raised \$73,000 by popular subscription in a four days' campaign for the purpose of enlarging, equipping and maintenance.

The Country Club of Flint is recognized as one of the finest in the middle west and has an 18-hole course, over which the Michigan Tournament is to be played this summer.

In addition to the golf course, the tennis courts maintained by the City Park Board are extensive in number and are some of the finest clay courts in this section of the state. It also maintains three municipal swimming pools.

The Flint Chamber of Commerce is ranked as one of fifty of the strongest Chambers in the country. Its organization comprises eleven departments and two affiliated organizations. During 1921, forty-six committees with a membership of 1,200 men worked unceasingly in carrying out the program of activities for the development of the city. This includes the Nolan City Plan, the modern street lighting system, the erection of the \$2,500,000 Durant Hotel, the bond issue of \$3,400,000 to be expended for good roads in Genesee County, the creation and promotion of the only Junior Chamber of Commerce in Michigan, comprising 450 young men from 18 to 28 years of age.

HISTORY OF GENESEE COUNTY MEDICAL SOCIETY

The history of the medical profession in Genesee County commences with the arrival at Grand Blanc in 1833 of Cyrus Baldwin, who made the journey on horseback from Onondago County, N. Y., through the forests, swamps and streams that then made up the intervening country. He identified himself with the community life of the little set-

tlement and was deacon in the church at that place.

The second doctor in the county was J. W. King, who located near Grand Blanc in 1834, and in 1848 formed a partnership with Dr. H. C. Fairbanks. Two years later, he came to Flint and engaged in the foundry business.

During the winter of 1841 and 1843, the first County Medical Society was formed. Four graduates of the old Fairfield Medical College, of Herkimer, N. Y., met in an office of the then little village of Flint. After con-



FREDERICK B. MINER, S. B. M. D.
President of Genesee County Medical Society

siderable discussion, the following officers were elected: President, John Hoyes; Secretary, R. D. Lamond; Treasurer, J. W. King; and the following men signed the Constitution: Drs. George Fish, Thomas Steer, J. C. Gallop and W. F. Baldwin.

About that time, doctors located in Fenton, Atlas and various other towns of the county; among them was Dr. Isaac Wixon, who practiced in Fenton 50 years. During his stay at Fenton, he assisted in the foundation of the U. of M.

The pioneer Homeopath was Dr. I. N. Eldridge, who came to Grand Blanc in 1850. He was one of the eight men who assisted in the formation of the Medical Institute of Homeopathy.

In 1858, Dr. S. M. Axford built what was

known as the Axford place in Flint, which was constructed primarily for a hospital, but later turned into a private home.

By 1878, the following Homeopaths were in the County: I. N. Eldridge, C. M. Putman, A. J. Adams, C. A. Hughes and M. E. Hughes, Flint; Lynus Taylor, Flushing; R. E. Knapp, Fenton; A. Austin, Argentine; J. Parks, Gaines.

One of the older pioneers of Flint was Dr. J. C. Willson, who married the daughter of H. H. Crapo, then Governor of Michigan.



W. H. MARSHALL

Secretary Genesee County Medical Society
Flint, Michigan

For many years Dr. Willson was prominent in the social and professional life of Flint. After his death in 1912, the city bought his property and converted the beautiful grounds into what is now known as Willson Park.

Another noted doctor was Daniel Clark, who came from Boston. Flint is indebted to Dr. Clark for the beautiful elms which he brought from Boston and planted on E. Kearsley St.

On May 26, 1866, several doctors formed what is known as the Genesee County Medical Association and a committee was appointed to compile constitution and by-laws and a few months later the following officers were elected: President, R. D. Lamond; Vice President, H. C. Fairbanks; Secretary, J. B. Curtis; Treas-

urer, A. B. Chapin. This Society prospered for a while until some dissatisfaction developed and it was finally dissolved in 1883.

Dr. Noah Bates, who is the oldest physician in the county, graduated in 1866; started practice at Linden; where he stayed two years; moving to Grand Blanc where he practiced until 1871, at which time he moved to Flint. Dr. Bates, too, went through the pioneer days of practicing medicine by way of horseback.

The Flint Academy of Medicine was organized in 1871.

Oak Grove Sanitarium, which had a national reputation, was founded in 1891, and was under the supervision of Dr. George C. Palmer until 1894, when he was succeeded by Dr. C. B. Burr, who came here from Pontiac and was with the institution until its close in 1920.

Another of our older men who is still in practice is Dr. John Handy, who came to Flint in 1885.

The present Genesee County Medical Society was founded at Oak Grove Sanitarium, October 28, 1903, by Dr. C. B. Burr, who was councillor for this medical district, and the following officers were elected: President, C. S. Wheeler of Flushing; Vice President, Albert Lynch; Secretary and Treasurer, H. R. Niles. The Board of Directors was composed of Drs. C. B. Burr, L. J. Locy, G. V. Chamberlain, R. H. Wood, M. S. Knapp. At this time, 33 members signed the Constitution and By-laws. This Society has had a steady, progressive growth until at the present time it is a Society of about 125 doctors, who hold regular meetings every other week, at which time doctors of high standing come from various surrounding cities and give talks on medical and surgical subjects.

In 1920 was founded the Flint Clinical Society, which was really a branch of the Genesee County Medical Society; the object was for the presentation of interesting cases by the various local doctors. This is still in existence, and the meetings are now held at Hurley Hospital and have proved a source of great interest and benefit to the medical fraternity and therefore to the community at large.

Officers of the Genesee County Medical Society for 1921 and 1922:

President, F. B. Miner.

Vice President, W. H. Winchester.

Secretary, W. H. Marshall.

Treasurer, A. C. Blakely.

Medico-legal Officer, C. Moll.

Directors, B. E. Burnell, Noah Bates, C. H. O'Neil, H. E. Randall, J. G. Manwaring.

Program of the 57th Annual Meeting of the Michigan State Medical Society, Flint, June 7, 8, 9, 1922

OFFICIAL CALL

The 57th Annual Meeting of the Michigan State Medical Society, its Council and House of Delegates will be held in Flint, Michigan, June 7, 8 and 9, 1922, for the transaction of official business that properly comes for consideration under the provisions of our Constitution and By-Laws.

W. J. KAY, President.

W. J. DuBois, Chairman of the Council.

J. D. Brook, Speaker of the House of Delegates.

Attest: F. C. Warnshuis, Secretary.

MEETING PLACES

GENERAL SESSION—Ballroom, mezzanine floor, Hotel Durant.

HOUSE OF DELEGATES—Grill room, basement floor, Hotel Durant.

MEDICINE—Knights of Columbus Hall, Detroit Street.

SURGERY—Ballroom, mezzanine floor, Hotel Durant.

GYNECOLOGY—Basement floor, Hotel Durant.

EYE, EAR, NOSE AND THROAT—Basement floor, Hotel Durant.

PEDIATRICS—Parlor A, mezzanine floor, Hotel Durant.

PUBLIC HEALTH—Parlor B, mezzanine floor, Hotel Durant.

EXHIBITS—Mezzanine floor and corridors, Hotel Durant.

REGISTRATION BOOTH—Lobby floor, Hotel Durant.

HOTEL HEADQUARTERS—Hotel Durant.

TIME OF MEETINGS

June 7, 1922.

- 2:00 P. M. House of Delegates.
- 5:00 P. M. Council Meeting.
- 7:00 P. M. House of Delegates.

June 8.

- 8:00 A. M. House of Delegates.
- 10:00 A. M. General Meeting.
- 1:15 P. M. Section Meetings.
- 7:30 P. M. General Meeting.

June 9.

- 8:00 A. M. House of Delegates.
- 9:15 A. M. Section Meetings.
- 11:30 A. M. General Meeting.
- 1:15 P. M. Section Meetings.
- 4:15 P. M. Adjournment.

HOTELS

DURANT—Second Avenue and Saginaw, 300 rooms. Double rooms, \$4.50 to \$10. Single rooms with double beds or twin beds, \$3.50 to \$4.

DRESDEN—Saginaw and Third Streets, 100 rooms, \$2 up.

BRYANT—305 S. Saginaw Street, 50 rooms, \$2 up.

CRYSTAL—Beach and Union Streets, 100 rooms, \$1.50 up.

A list of rooms in private houses may be consulted at the Registration Booth.

GARAGES

Wooden & Barnes—108 West Second Avenue, 75 cars, 75 cents a day.

Flint Exide Battery Service Co.—711 East Second Avenue, 200 cars, 50 cents a day.

B. V. Motor Sales—219 West Kearsley, 100 cars, 75 cents a day.

COMMITTEES

GENESEE COUNTY MEDICAL SOCIETY FOR STATE MEETING

RECEPTION—Dr. H. E. Randall and members of the society.

ENTERTAINMENT—Chairman, Dr. C. H. O'Neil; members, C. F. Moll, J. W. Orr, M. W. Clift, L. S. Willoughby.

LADIES ENTERTAINMENT—Mrs. B. E. Burnell, Mrs. A. J. Reynolds, Mrs. H. E. Randall, Mrs. J. W. Orr, Dr. Nellie Ward

EXHIBITS—Chairman, Dr. J. W. Evers; members, F. E. Reeder, George Curry.

HOTELS AND ACCOMMODATIONS—Chairman, Dr. H. A. Stewart; members, Drs. M. S. Knapp, B. E. Burnell, A. A. Patterson

LOCAL ARRANGEMENTS—Chairman, Dr. D. D. Knapp; members, Drs. C. Chapel, E. G. Dimond.

PRINTING—Chairman, Dr. George Goering; members, Drs. R. S. Morrish, A. C. Blakely.

FIRST GENERAL MEETING

W. J. Kay, President, Lapeer.

F. C. Warnshuis, Secretary, Grand Rapids.

PLACE: Ballroom, Hotel Durant.

TIME: June 8, 10 A. M.

1. Call to Order.
2. Invocation—Rev. Fr. Patrick Dunnigan, Major Chaplain Michigan National Guard.
3. Address of Welcome.
F. B. Miner, M. D., President Genesee County Medical Society.
4. President's Annual Address—W. J. Kay, M. D., Lapeer.
5. Address—Marion L. Burton, President University of Michigan.
6. Pasteur—Earnest Laplace, M. D., Philadelphia, Pa.
7. Report of House of Delegates.
8. Resolutions.
9. Adjournment.

SECOND GENERAL MEETING*TIME: June 8, 7:30 P. M.**PLACE: Ballroom, Hotel Durant.*

1. Opening Remarks—President Kay.
2. Address—Emerson W. Haven, M. D., New York.
3. Adjournment.

THIRD GENERAL MEETING*TIME: June 9, 11:30 A. M.**PLACE: Ballroom, Hotel Durant.*

1. Call to Order.
2. Report of House of Delegates.
3. Resolutions.
4. Introduction of President-Elect.
5. Adjournment.

COUNCIL MEETINGS*June 7—5 P. M.**June 8—12 M.**June 9—12 M.***HOUSE OF DELEGATES***J. D. Brook, M. D., Grandville, Speaker.**Carl Moll, M. D., Flint, Vice-Speaker.**F. C. Warnshuis, M. D., Grand Rapids, Secretary.***FIRST SESSION***PLACE: Grill Room, Hotel Durant.**TIME: June 7, 2 P. M.*

1. Call to Order.
2. Roll Call.
3. Report of Committee on Revision of Constitution and By-Laws—W. T. Dodge, Big Rapids.
4. Adjournment.

SECOND SESSION*TIME: June 7, 7:30 P. M.*

1. Call to Order.
2. Roll Call.
3. Reports of Committees.
4. New Business.
5. Adjournment.

THIRD SESSION*TIME: June 8, 8 A. M.*

1. Roll Call.
2. Reports of Committees of the House.
3. New Business.
4. Unfinished Business.
5. Adjournment.

FOURTH SESSION*TIME: June 9, 8 A. M.*

1. Roll Call.
2. Report of Nominating Committee.
3. Election.
4. Unfinished Business.
5. Adjournment.

SECTIONAL MEETINGS*June 8—1:15 P. M.**June 9—9:15 A. M.**June 9—1:15 P. M.***SECTION ON GYNECOLOGY AND OBSTETRICS****FIRST SESSION***June 8*

1. Acute Complete Inversion of the Uterus.

L. W. Haynes, M. D., Detroit.

Synopsis: Brief review of literature to date shows that with improved obstetrical technique the condition is becoming more frequent. Theory of some predisposing factor in certain uteri. Summing up of answers received to recent questionnaire regarding the percentage of occurrences, etiology, treatment and mortality. Report of cases.

2. True Eclampsia and Renal Eclampsia.

Walter E. Welz, M. D., F. A. C. S., Detroit.

Synopsis: True eclampsia occurs as a toxic disease of late pregnancy in women who were normal before pregnancy. Renal eclampsia is a toxic condition during pregnancy the result of nephritis before pregnancy. Confusion exists because of lack of distinction between these. Proper classification of all eclamptics is essential to improve knowledge, as well as to improve mortality rate.

3. General Impressions of the Relationship and Clinical Significance of Backache in Gynecological Cases.

John W. Sherrick, M. D., Ann Arbor.

Synopsis: The frequency of backache is becoming more and more important in the diagnosis and treatment of gynecological pathology and its relationship as a separate and associated entity in a large percentage of these cases, is proof of such significance that every practitioner who deals with these cases must revise his knowledge of its significance and his treatment and the prognosis offered for relief. Methods of examination will be discussed with special emphasis placed on those factors that are designated as the postural back in contradistinction to definite spinal pathology and to pelvic pathology giving rise to reflex symptoms in the back.

4. Irritable Bladder in Women.

W. P. Manton, M. D., Detroit.

Synopsis: While the female bladder is subject to practically the same disorders that affect the male, with variations due to anatomical surroundings, the urologist has sadly neglected this branch of his specialty, and devoted his attention to the possibly more interesting diseases affecting the latter. Following the publications of A. J. C. Skene and the epoch-making work of Kelly, comparative little literature has accumulated dealing with the disorders appearing in women. Bladder irritation, as one of the most frequently encountered symptoms in this sex, is usually treated by sedatives or, on the assumption that a greater or less inflammation of that organ exists, the active washing out of the viscus is carried out. The object of this paper is to point out wherein such treatment is frequently undesirable, and often harmful.

SECOND SESSION*June 9, A. M.*

Symposium—The Indications For and Methods of the Artificial Termination of Pregnancy.

1. Toxemias of Pregnancy Including Preeclampsia, Eclampsia and Nephritis.

Reuben Peterson, M. D., Ann Arbor.

Synopsis: Pre-eclampsia, when toxic symptoms are increasing in spite of treatment. Eclampsia, in the presence of convulsions, uterus should be emptied by method giving rise to least shock. This should be done as soon after the first convulsion as possible. Exception is where convulsions occur after onset of labor which will be rapidly terminated by natural forces. Nephritis, simply another form of intoxications. Results from nephritic disease. Same rules apply for artificial termination of pregnancy, since indications will depend upon degree and progress of toxemia. Discussant: George A. Kamperman, M. D., Detroit.

2. Pernicious Vomiting of Pregnancy.

John N. Bell, M. D., Detroit.

Synopsis: Frequency—True pernicious vomiting probably always toxic. Classification of

types. Etiology—Still a mooted question. Clinical manifestation in pernicious vomiting and eclampsia. Significance of blood chemistry in pernicious vomiting. Endocrine disturbances and Hirst's theory of the corpus luteum. Pathology—The liver the organ chiefly affected, acute yellow atrophy, eclampsia and pernicious vomiting. Diagnosis—Importance of determining the ammonia co-efficient in the urine. Prognosis still extremely grave.

Discussant: Norman F. Miller, M. D., Ann Arbor.

3. Heart Disease and Pregnancy.

Frank N. Wilson, M. D., and George R. Hermann, M. D., Ann Arbor.

Synopsis: Heart disease which arises before the age of 40 is due chiefly to rheumatic fever and its allies; growing pains, rheumatic myositis, chorea, and sore throat. Rheumatic heart disease is, therefore, much more frequently present in the pregnant woman than any other type.

The heart does not hypertrophy during pregnancy; certainly not in a degree which can be detected during life and most post-mortem observations have been negative. It is hardly to be doubted, however, that the work of the heart is increased during the latter months of pregnancy and during labor the heart is subjected to a severe strain.

The great majority of women with heart disease go through pregnancy and labor without any immediate ill effect. Only about one in five has symptoms of cardiac weakness and only a few of those that develop heart failure die. The interruption of pregnancy is not indicated except in those who have a high degree of heart failure. In these the fetal mortality is so high that it is not advisable to allow the prospective mother to run the great risk of labor since it is unlikely that a viable child will be obtained.

Discussant: C. E. Boys, M. D., Kalamazoo.

4. Contracted Pelves and Other Serious Maternal Defects Requiring Artificial Termination of Pregnancy.

H. H. Cummings, M. D., Ann Arbor.

Synopsis: The most common types of pelvic contractions. Absolute and relative indications and simple methods of detecting contractions. Importance of outlet pelvimetry.

Cesarean section offers the best method of terminating pregnancy in contracted pelvis.

Dystocia due to fibromyomata, carcinoma of the cervix, ovarian cysts, pelvic osteomata, atresias of the birth canal, former operations; methods of terminating pregnancy under these conditions. Lantern slides showing outlet pelvimetry.

Discussant: Alexander Martin, M. D., Grand Rapids. General Discussion.

THIRD SESSION

June 9, P. M.

1. Further Experience With the Two-Flap Low Incision Cesarean Section.

Alfred C. Beck, M. D., Brooklyn, N. Y.

Synopsis: Brief description of operation. Emphasizing some of the details which are essential to a good result. Difficulties encountered by the operator who does this operation without having seen it previously performed. Suggestions which aim to eliminate these difficulties. Conclusions that might be drawn from our experience with this technic to date. (Lantern slides.)

2. Present Status of the Surgical Treatment of Uterine Prolapse.

F. C. Witter, M. D., Detroit.

Synopsis: 1. Etiological factors. 2. Review of anatomy of pelvic floor and supporting structures. 3. Degrees of prolapse. 4. Discussion of the various operations best adapted to accomplish the desired results with varying conditions in the different cases. (Lantern slides.)

3. Diagnostic Value of Artificial Pneumoperitoneum in Sterility in Women.

Bernhard Friedlaender, M. D., Detroit.

Synopsis: Discussion of sterility in women. Classification as to cause of two hundred cases

of sterility, examined by author. Discussion of an illustrative case of female sterility with particular reference to points to be observed in the examination. Technic of artificial pneumoperitoneum. Operation for relief of sterility in this case. Results. (Lantern slides.)

4. Indications for Cesarean Section—a Study of 100 Cases.

Max Burnell, M. D., Flint.

Synopsis: The indications for this series of cesarean section group themselves under the following headings: 1. Primipara—with contracted pelvis. 2. Multipara—with contracted pelvis. 3. Post-operative dystocia. 4. Placenta Praevia. 5. Pelvic tumors. 6. Decompensated cardiac cases. 7. Rigid cervix. 8. Previous cesarean section. 9. Fetal malpositions, impacted transverse and posterior face. 10. Eclampsia. 11. Rupture and impending rupture of the uterus. 12. Malformation of the uterus (double uteri). (Lantern slides.)

SECTION ON MEDICINE

FIRST SESSION

June 8, 1:15 P. M.

Symposium on Hyperthyroidism (Combined Session with the Sections of Surgery and Pediatrics).

1. Pathology.

Louis B. Wilson, M. D., Mayo Clinic, Rochester, Minn.

2. The Internist's Viewpoint.

Charles Louis Mix, M. D., Chicago, Ill.

3. Surgery.

George Crile, M. D., Cleveland, Ohio.

4. Radiotherapeutics.

Wibur O. Upson, M. D., Battle Creek.

5. The Prevention of Simple Goiter in Man.

O. P. Kimball, M. D., Cleveland, Ohio.

SECOND SESSION

June 9, 9 A. M.

1. Chairman's Address.

2. Basal Metabolism.

Hugo A. Freund, M. D., Detroit.

3. Treatment of Mild Diabetes Mellitus.

Phil L. Marsh, M. D., Ann Arbor.

4. Problems of Fat Metabolism.

Frank J. Sladen, M. D., Detroit.

5. Paralysis Agitans.

Frank R. Starkey, M. D., Detroit.

6. Indications for Therapeutic Pneumothorax.

Herbert M. Rich, M. D., Detroit.

7. Management of Tabes Dorsalis.

Fred P. Currier, M. D., Ann Arbor.

THIRD SESSION

June 9, 1:15 P. M.

1. Difficulties in Diagnosis of Right Upper Quadrant Cases.

Clyde F. Karshner, M. D., Grand Rapids.

2. Radiation in the Treatment of Blood Diseases.

L. Stern, M. D., Ann Arbor.

3. Management of the Cardio-Renal Case.

M. A. Mortenson, M. D., Battle Creek.

4. The Heart Muscle.

William Northrup, M. D., Grand Rapids.

5. Symptoms and Diagnosis of Coronary Sclerosis and Allied Conditions.

Collins H. Johnson, M. D., Grand Rapids.

6. Heart Murmurs.

John L. Chester, M. D., Detroit.

7. Medical Management Following Gastro-Intestinal Surgery.

I. W. Green, M. D., Ann Arbor.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Chairman—G. E. Winter, M. D., Jackson.

Secretary—Howard W. Peirce, M. D., Detroit.

FIRST SESSION

June 8, 1:15 P. M.

1. Conservation of the Sac in Dacryocystitis.
Chas. H. Baker, M. D., Bay City.
Disease caused by bacterial invasion from both ends of the sac.
Germs most commonly found.
Nasal disease believed the most common source of the infection.
Treatment by small probes through the undivided punctum commonly fails.
Slitting and occasional use of large probes gives better results.
Extirpation too frequently resorted to and the objections to this method.
Nasal anastomosis a better plan.
Plan of treatment by slitting of the canaliculus division of stricture and passage daily of large probes results in cure of most cases without the annoyance of tears left by extirpation.
Discussant: W. G. Bird, M. D., Flint.

2. Ophthalmia Neonatorum—Report of 230 Cases.

Geo. M. Waldeck, M. D., Detroit.

Report of 230 cases at Children's Free Hospital. This paper is based principally on a series of 230 cases of Ophthalmia Neonatorum from the Ophthalmic Ward of the Children's Free Hospital between the time of the opening of the ward in 1910 to September, 1919. All cases were cared for in the special ward equipped solely for that purpose, by nurses specially instructed in this work in constant attendance.

Gonococcus was isolated in 55 per cent of cases. Eleven cases died of concurrent disease, two cases were moved from the hospital against advice, the outcome of which was not learned, and two were cases of infection in older children with staphylococcal eyes. These are not included in the percentage.

There was loss of sight in one eye in eight cases, five of which had corneal ulcers on admission, the other three developed ulcers while under treatment in the hospital. There were six cases of blindness in both eyes, in all of whom the cornea was involved on admission. All these cases were of two and one-half to six weeks' duration before being brought to the hospital, and in only one of them was there a chance of saving any vision. In this case one cornea was still intact on admission, but became involved very soon after, and the vision was lost.

Omitting these cases in which ulceration of the cornea precluded visual result on admission to the hospital, there was no loss of vision on leaving the hospital in 201 out of 205 cases, or 98.04 per cent. In three cases, or 1.42 per cent, there was loss of vision in only one eye, and in one case, or 0.48 per cent, total blindness resulted.

Various treatments are discussed. The treatment most successful in the present series is the use of 25 per cent argyrol every hour until the discharge becomes less, then every three hours, and eventually three times daily. Two per cent solution of silver nitrate carefully applied to the averted eyelids was also used once daily in stubborn cases. No case was discharged as well until all inflammation had subsided and until two smears were found negative.

Discussant: F. J. Cady, M. D., Saginaw.

3. The Blind Spot. (By Invitation.)
Harry G. Gradle, M. D., Chicago, Ill.
Synopsis: Short resume of the history of our knowledge of the Blind Spot. The Optic Tract anatomy and physiology that lead to the presence of a Blind Spot. Methods of measuring the Blind Spot and its physiologic size. Abnormalities of the Blind Spot in various diseases and the significance thereof.
Discussant: Harold Wilson, M. D., Detroit.
4. Amblyopia Due to Sinusitis.—Report of Two Cases.
Walter R. Parker, M. D., Detroit.
Abstract. First case, male, almost complete loss of vision associated with sinusitis. Com-

plete recovery following operation on ethmoids. Second case, male, partial blindness one eye. Complete recovery following drainage after operation for deviated septum.

Discussant: Roy B. Canfield, M. D., Ann Arbor.

5. Rudimentary Lamellar Cataract.
Herman Grant, M. D., Detroit.
Synopsis: Clinical picture of early type, in child of 12 years of age. Stationary. Refraction failures. Advantages of Electric Retinoscope.
Discussant: Raymond Sleight, M. D., Battle Creek.

SECOND SESSION

June 9, 9 A. M.

1. Chairman's Address.
G. E. Winter, M. D., Jackson.
2. X-Ray Treatment in Diseases of the Ear, Nose and Throat.
Wm. Evans, M. D., Detroit.

Purpose of the paper: To present the conclusions, personal and otherwise, regarding this method.

Special attention will be directed to the treatment of the tonsils and other lymphoid hypertrophies, and to diphtheria carriers.

Will indicate lesions that respond and give technic in detail.

Discussant: V. M. Moore, M. D., Grand Rapids.

3. Tubercular Laryngitis—Diagnosis and Treatment.
Burt R. Shurley, M. D., Detroit.

Synopsis: Tuberculous Laryngitis as an entity. Its relation to pulmonary infection. Differential diagnosis. Importance of early findings. Involvement of the epiglottis. Operative procedure, indications and technic. Treatment topical, surgical, X-Ray. The value of sunlight and other light rays reflected. Treatment carried on by the patient under instruction. Climatic treatment with observation of results.

Discussant: Guy McFall, M. D., Detroit.

4. Indications for Radium Therapy in Ophtho-Oto-Laryngology.
R. E. Loucks, M. D., Detroit.

THIRD SESSION

June 9, 1:15 P. M.

Symposium:

1. Acute Mastoiditis.
Alexander R. McKinney, M. D., Saginaw.
Pathology, diagnosis and treatment of Simple Mastoiditis.
Middle ear and Mastoid anatomically and physiologically one. Mastoid always involved in suppurative otitis media, most cases healing spontaneously. Amount of bone destruction dependent on the particular infecting organism. Examination of aural discharge for bone debris, transillumination and radiography important diagnostic aids. Persistence of symptoms indicate surgery.
Discussant: A. E. Owen, M. D., Lansing.
2. Chronic Mastoiditis.
Wilfrid Haughey, M. D., Battle Creek.
Indications for radical operation. Pathology. Method of operation. Choice of closure. After treatment. Results.
Discussant: E. P. Wilbur, M. D., Kalamazoo.
3. Sinus Thrombosis.
Don M. Campbell, M. D., Detroit.
A complication in various forms of Sepsis in the temporal bone.
Anatomic considerations. Types of Mastoids. Position of the Sinus, right or left side. Position impotency of the Antrum.
Types of infection. Importance of bacteriologic study. The bearing of temperature sweats,

chills, blood cultures and general condition of the patient on diagnosis.

Difficulty of determining on which side the Thrombosis is in double post-operative cases. Report of two such instances.

The proper management of the Jugular in case the Sinus is surgically attacked.

Prognosis.

Discussant: Emil Amberg, M. D., Detroit.

4. Brain Abscess.

Max Peet, M. D., Ann Arbor.

Discussant: Max Ballin, M. D., Detroit.

5. Labrynthitis.

Geo. E. Frothingham, M. D., Detroit.

Synopsis: Source of invasion. Pathology. Symptoms indicating involvement of the Labyrinth. Indications requiring Radical Mastoid or Labyrinth operation.

Discussants: B. N. Colver, M. D., Battle Creek;

Neil Bentley, M. D., Detroit.

PUBLIC HEALTH SECTION

GENERAL SESSION

Wednesday, June 7, 1:15 P. M.

1. Address by H. B. Neagle, M. D., Adrian, President Michigan Public Health Association.

2. National Health Questions.

A. J. McLoughlin, M. D., President American Public Health Association.

3. Program of the Michigan State Department of Health.

R. M. Olin, M. D., State Commissioner of Health.

4. Organization and Function of Local Boards of Health.

Henry F. Vaughn, D. P. H., Detroit, Commissioner of Health.

5. Relation Between the Board of Health and the Practicing Physician.

Guy L. Kiefer, M. D., Detroit.

Discussion: W. J. Kay, Lapeer, President Michigan State Medical Society;

J. B. Kennedy, M. D., Detroit, Chairman Legislative Committee, Michigan State Society.

MORNING SESSION

Thursday, June 8, 9 A. M.

1. Symposium—Proper Functions and Duties of Public Health Nurse.

(a) Point of View of the Health Officer.

Wm. DeKleine, M. D., Health Officer, Flint.

(b) Point of View of the Nurse.

Miss Harriet Leck, Director, Division Child Welfare, State Department of Health.

(c) Point of View of the Public.

Mr. Wallace Smith, Saginaw.

2. Sanitation of Summer Health Resorts.

E. D. Rich, Chief Engineer, State Department of Health.

Discussion:

3. Symposium—Methods of Controlling Acute Contagious Diseases.

(a) Point of View of the Health Officer.

C. C. Slemons, M. D., Health Officer, Grand Rapids.

(b) Quarantine vs. Isolation.

A. H. Rockwell, M. D., Health Officer, Kalamazoo.

(c) Legal Aspects.

Judge L. W. Carr, Lansing.

(d) Outbreak in Schools.

(Medical School Inspector.)

4. Training Required for a Health Officer.

John Sundwall, M. D.

AFTERNOON SESSION

Thursday, June 8, 1:15 P. M.

1. The Child Health Demonstration Center.

Walter H. Brown, M. D., Director, National Child Health Demonstration Center, Mansfield, Ohio.

Discussion:

2. Symposium—Laboratory Service in Public Health Work.

(a) Facilities Offered by Private Laboratories.

R. G. Owen, M. D., Detroit.

(b) State Department of Health.

C. C. Young, M. D., Lansing.

(c) Biological Laboratories.

E. W. Lescohier, M. D., Parke, Davis & Co., Detroit.

3. Symposium—The Importance of Statistical Records in Public Health Work.

(a) Births, Deaths and Case Records.

W. J. V. Deacon, M. D., Director, Division of Communicable Diseases, State Department of Health.

(b) The Commercial Importance of Vital Statistics.

Dr. Louis Dublin, Metropolitan Life Insurance Co., New York City, N. Y.

(c) The Mercantile Value of Vital Statistics.

Mr. Henry Shattuck, Statistician, Dodge Bros. Motor Car Co., Detroit.

PEDIATRIC SECTION

FIRST SESSION

Thursday Afternoon, June 8

The section will meet with the sections on Medicine and Surgery, in a symposium of Thyroid Diseases.

This section is represented by Dr. O. P. Kimball of Cleveland, Ohio, who will speak on the "Prevention of Simple Goiter in Man."

SECOND SESSION

Friday Morning, June 9

1. The Role of Acidified Milk in Infant Feeding.

Roy Greenthal, M. D., Ann Arbor.

Abstract: "A lactic acid milk was prepared by adding C. P. lactic acid to pasteurized milk. This milk has been fed to infants with apparently as much success as lactic acid milk prepared with the *Bacillus Bulgaricus*. It would seem that much of the benefit derived from lactic acid milk is due to the chemical changes produced by acidifying the milk."

2. The Difficulty of Early Diagnosis of Tuberculosis in Infancy and Childhood.

Guy L. Bliss, M. D., Kalamazoo.

Abstract: "Regular routine examination urged of clinical history, temperature, sensitiveness, weight, fatigue, rales, spinal dullness, cough, tubercular reaction and X-Ray. These are important when considered as a whole, but of every little value if considered individually. Active tuberculosis is a relative thing. Acquiring tuberculous immunity a prerequisite to adult life."

Discussed by Frederick J. Larned, M. D., Grand Rapids.

3. Chronic Non-Tuberculous Bronchial Gland Infections.

Thomas B. Cooley, M. D., Detroit.

Abstract: "Case reports and lantern slides illustrating a condition not uncommon in chil-

dren, and causing various degrees of impaired health, from obstinate recurrent cough to a condition closely simulating tuberculosis.

"Discussion of etiological factors—pertussis, tonsil and adenoid infections, etc.—relation to certain types of asthma, and treatment; medicinal, vaccine, and climatic."

Discussed by D. J. Levy, M. D., Detroit.

4. Otitis Media in Infants.

L. Fernald Foster, M. D., Bay City.

Discussed by R. M. Kempton, M. D., Saginaw.

5. Acetonemia.

John P. Parsons, M. D., Ann Arbor.

Abstract: "The clinical picture differentiated from acidosis and alkalosis. Signs of acetonemia may serve as a warning and therapeutic indication before typical symptoms of intoxication have developed. Treatment. Report on some animal experiments."

THIRD SESSION

Friday Afternoon, June 9

1. Treatment of Alimentary Intoxication With Report of Cases.

Earl May, M. D., Detroit.

2. The Feeding Method Used in the Department of Pediatrics, University of Michigan Hospital.

D. Murray Cowie, Ann Arbor.

Abstract: "This paper deals with the method used in the feeding of normal infants."

3. Some Principles in Infant Feeding.

Raymond Hoobler, M. D., Detroit.

Discussant: J. C. Montgomery, M. D., Detroit.

4. Fever and Body Fluid.

Rockwell Kempton, M. D., Saginaw.

Abstract: "The body a water cooled machine. Review of experimental work by Woodyatt et al on 'Fever and Water Reserve.' In health the circulating free water absorbs excess heat from the organs and carries it to the surface for evaporation. In disease, tissues bind water, thus decreasing amount of water available for the cooling process. Clinical cases from literature and personal observations supporting above hypothesis."

5. The Methods Used in the Care of Pyloric Stenosis and Pseudostenosis in the Department of Pediatrics, University of Michigan Hospital.

Lynne A. Hoag, M. D., Ann Arbor.

Abstract: "It is probable that every case of pyloric stenosis has a superimposed spasm or pseudo-stenosis. The latter may occur alone. Treatment directed toward the gastric hyperacidity, which frequently accompanies the stenosis, together with the relief of the vagus hyperirritability by the use of atropine, makes the non-surgical treatment of these cases effective."

SECTION ON SURGERY

FIRST SESSION

June 8, 1:15 to 4 P. M.

Medical and Surgical Session.

Symposium: Hyperthyroidism.

SECOND SESSION

June 9, 9 A. M.

1. Value of New Short Wave in the X-Ray Treatment of Cancer.

J. T. Case, M. D., Battle Creek.

2. Radium Treatment in Cancer of the Cervix.

C. D. Brooks, M. D., Detroit.

3. Carcinoma of the Breast, Its Combined Treatment, Surgery and X-Ray Treatment.

William Cassidy, M. D., Detroit.

4. Cancer Problems.

H. C. Saltzstein, M. D., Detroit.

Discussion by P. M. Hickey, M. D., Detroit;

R. E. Loucks, M. D., Detroit;

R. R. Smith, M. D., Grand Rapids;

Reuben Peterson, Ann Arbor.

THIRD SESSION

June 9, 1:30 P. M.

1. Nitrous Oxide in Major Surgery.

Alex. W. Blain, M. D., Detroit.

Discussion by Myra E. Babcock, M. D., Detroit;

W. T. Shannon, M. D., Detroit;

E. O. Sage, M. D., Detroit.

2. Symposium: Cortical Infections of the Kidney.

Fred H. Cole, M. D., Detroit, and N. F. McClinton, M. D., Saginaw.

Discussion by Hugh Cabot, M. D., Ann Arbor;

H. W. Plaggemeyer, M. D., Detroit;

F. W. Robbins, M. D., Detroit.

3. Preparatory Treatment of Patients for Operations on the Gastro-Intestinal Tract.

O. H. Hart, M. D., St. Johns.

Discussion by Alex. W. Blain, M. D., Detroit;

H. E. Randall, M. D., Flint;

B. M. Davey, M. D., Lansing.

4. Deformities of the Feet in Relation to Posture.

Byron Monkman, M. D., Detroit.

5. Selection of Cases for Arthrodesis and Arthroplasty and Their Relative Value.

Paul B. Magnuson, M. D., Chicago, Ill.

Discussion by F. C. Kidner, M. D., Detroit;

A. D. LaFerte, M. D., Detroit;

William E. Blodgett, M. D., Detroit.

ENTERTAINMENT

Wednesday evening, June 7th—At the ballroom, Hotel Durant, 9 P. M. Smoker given by the Genesee County Medical Society. Music and special entertainment features.

Thursday evening, June 8th, 9 P. M.—Ball, at ballroom of the Hotel Durant.

Other Features—Trips by auto to the automobile factories of Flint at 10 A. M. and 4 P. M., Thursday, June 8th.

Free tickets will be issued to the entertainment features of the Lakeside and Flint Parks.

LADIES ENTERTAINMENT

Thursday, June 8th, 1:30 P. M.—A Bridge Luncheon at the Flint Country Club.

Friday Forenoon, June 9th—An auto trip around the city and a visit to the automobile factories.

GOLF TOURNAMENT

First Day, Wednesday, June 7

The Entertainment Committee have decided to begin their program with an eighteen-hole golf match starting at 1:30 P. M., eastern standard time, Wednesday, June 7th. This will be a medal score affair on your club handicap basis. Following this golf match, there will be a golfers' dinner, at the Country Club, at P. M., where steps will be taken to make these golf meets a regular annual affair. Please send your name and club handicap as soon as convenient to Dr. W. G. Bird, 510 F. P. Smith Building, Flint, Michigan, in order that we may know how many players may be expected.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

W. T. Dodge, ChairmanBig Rapids
A. L. SeeleyMayville
J. M. McClurgBay City

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Associate Editor, Detroit.

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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MAY, 1922

Editorials

FLINT NUMBER—OUR ANNUAL MEETING

Last year at Bay City, when Flint was designated as the place for the holding of our 1922 Annual Meeting, the idea became firmly established that this year's meeting would be a most successful one. That idea still persists, in fact, it is growing stronger. In this issue the reader will find further reason. Elsewhere you will find a splendid description of Flint, its industries, civic, professional and social life. Likewise you will find imparted to you a preliminary announcement of our scientific program. Read this Flint article, then study the program and having done this commence now to plan to attend. Note the dates, June 7, 8 and 9. The completed program will be published in our June issue which we will endeavor to get to you during the last week in May.

We do not believe further editorial comment is required. We know that our Flint members are diligently planning for your profit, pleasure and comfort. We know the reputation of the Flint profession as hosts and they are going to more than justify that reputation. It is you

who cannot afford to miss participating in and attending this meeting. Make your hotel reservations now and be thus doubly assured of accommodations as well as additional benefits that will ensue your presence in Flint on June 7, 8 and 9.

REVISION OF CONSTITUTION AND BY-LAWS

This issue also contains the report of the Committee on Revision of our Constitution and By-Laws and imparts the proposed new draft that will be presented to the House of Delegates at its first meeting for adoption. The Committee has spent much time and labor in perfecting its report and has sought to cover every feature of our organization's activity. Its recommendations are further based upon a wide study of the constitutions of many state medical societies. Many of the sections have been extracted from constitutions of state medical societies because by correspondence it was learned of the success that followed their application and how they solved like problems of organization activity that now confront us. The Committee feels that it has preserved the spirit and object of our organization and has included changes only where present-day progress and conditions made such changes desirable.

We trust that our delegates will study this draft and so come to the House of Delegates prepared for intelligent action when the committee's report comes before the House.

SPECIAL MEETING OF THE COUNCIL

OFFICIAL MINUTES

A special meeting of the Council of the Michigan State Medical Society was held in Detroit on March 27th, 1922, at 2 p. m., pursuant to a special call issued by the Chairman at the request of Councillors Walker, Seeley, Randall, Southworth and Clancy.

In the absence of Chairman DuBois, the Vice-Chairman, Councillor Seeley, presided.

There were present: Councillors Walker, Seeley, Stone, Southworth and Randall.

The Acting Chairman stated that the meeting was called to hear a report of the Chairman of the Legislative and Public Policy Committee and to transact such other business as may properly come before the Council.

J. B. Kennedy, Chairman of the Committee on Legislation and Public Policy, then made a verbal report touching upon the plans and activities of his committee and requested certain instructions. He also raised the point of the Council's authority to appoint a committee to

act with a like committee of the University of Michigan as was done at the January meeting of the Council and maintained that only the President was vested with that authority.

On motion of Councillor Walker, supported by Councillor Southworth, the following motion was made and carried unanimously:

"That the Council rescind its action taken at its January meeting, 1922, in appointing a special committee to function with a similar committee of the University of Michigan, inasmuch as under Chapter I, Section 7, of the By-Laws, the authority for the appointment of all committees is vested in the President."

Moved by Councillor Walker: That County Societies be requested to collect and remit to the Secretary-Editor voluntary subscriptions to create a special fund for legislative and educational purposes and suggests a per capita subscription of Two Dollars per member. Carried.

Discussion was engaged in regarding the bill of Mr. Montgomery for \$1,200. It was agreed to refer this to the Committee and Secretary-Editor for investigation and report.

Adjourned at 4:45 P. M.

F. C. WARNSHUIS,
Secretary.

PUBLIC HEALTH EDUCATION

The Joint Committee on Public Health Education held its third meeting in Detroit on March 27. The meeting concerned itself with the preparation of a Bulletin that will shortly be issued by the Extension Bureau of the University. This Bulletin will impart the object that is being sought by the Joint Committee, the purpose of the movement, how lecturers may be secured and a list of fifty lecturers and the subjects of the lectures. This Bulletin will be distributed to lay and medical organizations throughout the state. Bookings are already being made, and assignments are being listed. Just as rapidly as possible, additional speakers and subjects will be selected. This preliminary Bulletin will be followed by a larger one as the work of the committee progresses. The next Committee meeting will be held in Lansing, on May 9, in the office of the Commissioner of Health Olin.

As we have indicated in previous editorials, the plan and activity of this Committee is the greatest undertaking that the profession as an organization can engage in. As a profession we have made wonderful progress in the past twenty-five years. The while we were engaged in our scientific investigations and studies, the while we were pursuing our observations and applying our proven tenets we **maintained** a reserve that withheld from the public informa-

tion regarding the progress that was being made and the principles that were being established. As a result the public remained in ignorance in regard to the achievements that had been wrought. Today the public is twenty years behind the times in regard to possession of knowledge of what scientific medicine accomplishes. The public, to a certain extent, views the profession in the light that they did twenty years ago. This accounts for much of their misunderstanding of the profession and the existence of the many superstitions and mistaken ideas regarding disease, its cause, treatment, prevention as well as regarding doctors and their professional life.

We must confess guilt, to a certain degree, for that state of affairs. Likewise it becomes our duty and obligation to impart to the public an insight of the principles and practices of scientific medicine and to supply to the public the information that is so lacking today. To impart that knowledge is the purpose of this Joint Committee. The Joint Committee is devoting much time and careful study to its plans and is seeking to develop them along sound lines that will not permit misinterpretation. In doing so it must have the co-operation and assistance of our members in every community. To obtain that assistance we are urging that every county society and every member subscribe his whole-hearted support. Lend your aid to your local committee and become a co-worker.

LOUIS PASTEUR—THE FATHER OF MODERN BACTERIOLOGY

Nineteen hundred and twenty-two marks the hundredth anniversary of the birth of Louis Pasteur—the father of modern bacteriology. We are to have the pleasure and privilege of hearing Dr. La Place of Philadelphia address us on the life and work of Pasteur at our General Meeting in Flint. For that reason we are not devoting more editorial space, at this time, to a discussion of Pasteur's influence upon modern medicine. We do want our readers to have the following extract clipped from one of our exchanges:

"On December 27, 1822, at 2 a. m., Louis Pasteur was born in the humble cottage of a tanner in Dole, France. Among numerous aphorisms which he uttered was the following: 'A man of science should think of what will be said of him in the following century, not of the insults or the compliments of his day.' This year will witness a centennial celebration of the birth of the father of modern bacteriology. To record his achievements and contributions toward medical science might well require vol-

umes. He is particularly notable for his work on molecular dyssymetry (1848), fermentation (1857), diseases of wine (1863), diseases of silkworms (1865), virulent diseases (anthrax, chicken cholera, 1877), preventive vaccination (1880), and, especially, the devising of the Pasteur method of preventing hydrophobia (1885). Following the opening of the Pasteur Institute in Paris there came to him students from all over the world; the record of their discoveries—Roux (diphtheria anti-toxin), Chamberland (the filter), Metchnikoff (phagocytosis), Yersin (plague bacillus), Calmette (immunity, preventive in oculations against snake bite)—forms one of the greatest of chapters in modern medicine. After his death, in 1895, a mausoleum for his remains was built in the Pasteur Institute, creating a veritable shrine for those who worship the noblest of the sciences. As Sir William Osler said:

“‘Before him Egyptian darkness; with his advent a light that brightens more and more as the years give us ever fuller knowledge.’”

PUBLIC OPINION AND PHYSICIANS*

Lay and Medical Press—There are two outstanding influences creating professional and public opinion. These influences are the lay and medical press. Of these two the first is more powerful for it markets its reading material with all classes who read; while medical publications have few readers beyond the ranks of the profession. The distribution of the lay paper is promoted by the most aggressive methods known to the science of business, but the medical journal is restricted and unread except by a very small number. The verbal method of communicating professional and medical traditions is yet quite prevalent, but the lay press dominates the minds of its readers, moulding and stimulating the trend of thought in each community through daily contact, until by repetition and continued emphasis the ideas are sold to the majority of readers, lay and professional alike.

Public and Lorenz—The recent visit to this city of Professor Adolf Lorenz suggests two studies; one, the psychology of the public mind and the other, that of the medical mind. To quote the words of a prominent business man at the D. A. C. banquet, “There have been no visitors at the D. A. C. except Foch and Theodore Roosevelt who have created the interest felt in Prof. Lorenz.” Again, it is exceedingly interesting to ponder over the fact that an audience would fill Orchestra Hall and sit quietly and patiently for nearly two hours

listening to a technical paper which could not be understood and to a voice which could not be heard by five per cent of those present. Medical opinion is likely to be divided and attitudes taken because of the intensity of public interest in this distinguished Austrian, also because of the estimate of ability held by orthopedic specialists and that of the layman. A disinterested opinion could be expressed by saying Professor Lorenz is fully appreciated, but our orthopedic men are not. The question for us to answer is: Why not?

Professional Unrest—In the A. M. A. Journal of March 25, 1922, H. C. Macatee of Washington has written upon the subject, “A Remedy for Professional Unrest,” and in this keenly analytical article he sets forth what are called two decisive faults of our profession, pride and materialism. We are called a conservative lot. Our habits of mind are aristocratic and we are said to be afraid of any movement that threatens our status quo, notwithstanding the fact that the accumulated knowledge of mankind belongs to mankind and is the property of society, therefore we should not constitute ourselves a political bloc.

He predicts that our profession is going to be modified in whatever fashion the social organism finds expedient and that the “healing cults” are plagues on us and society for our sins.

Henri Frederic Amiel is quoted as saying, “Doctors neglect the real problem, which is to seize the unity of the individual who claims our care.”

Macatee believes “we do ill to ourselves and to society if we yield to fear and spend our energies in vain strife to maintain institutions and practices which society is determined to modify.”

Christian Science—We are being questioned by intelligent laymen concerning the relative viciousness of the healing cults, our pacificity to Christian Science and our reasons for delegating to the clergy the critical work against this most unprogressive, unscientific and unchristian of all cults. The medical profession is paying little or no attention to this forty-five-year-old miscarriage. There are those who reason that osteopathy and chiropractic will through educational evolution become assimilated in one system of medicine. But Christian Science is established as a religion, but has remained only a psychic anlagen of medicine and as Ferguson has said, “can have no other result than that of increasing the sum total of disease and suffering.”

The members of the medical profession are frequently taunted with remarks carelessly uttered by their confreres, that this is a harmless system and really serves a good purpose for the

*James E. Davis, M. D., in Wayne County Medical Society Bulletin.

neurotic mind. It is to be remembered that Mrs. Eddy repudiated all connection of her system with hypnotism, suggestion, or any form of mental operation.

Osteopathy—Without the patronage, good will and financial support of the public manifestly this cult would not continue. A few years ago Mr. Abraham Flexner, one of the secretaries of the General Educational Board, reported to Governor Glynn of New York that after a visit of inspection to every medical school in the United States and Canada and most of the medical schools of Europe, he found both good and bad schools of the regular profession but all of the osteopathic schools were bad, mercenary, had low grade entrance requirements (so low that anyone might enter).

At first legislation was sought under the plea that drugs were not used—therefore they were not practicing medicine, but were limited practitioners. Under the Harrison Narcotic Law, however, registration has been asked for. Commissions in the medical departments of the Army and Navy were sought but were justly refused.

There are many states, including Michigan, where osteopathic practice is permitted upon lower educational qualifications than that required for physicians. The chief reason for granting this license is based upon wrong assumption as shown by several state and national supreme court decisions. The so-called limited practitioner proceeds at once when licensed to become an unlimited practitioner.

The public and the medical profession should demand that osteopathic schools be measured by the same standards and methods by which medical colleges and physicians are measured.

Chiropractic—The theory sustaining this system (according to McNamara of the Universal Chiropractic College, Davenport, Iowa) presumes that in consequence of displaced vertebra the intervertebral foramina are occluded through which the spinal nerves pass. In this way the nerves are pinched, causing 95 per cent of all diseases. Chiropractic concerns itself with an adjustment of the subluxations. B. J. Palmer, head of the most important chiropractic college in the United States, says the history of a case is not taken because it is of no value. "It makes no difference whether the case has been diagnosed as insanity, appendicitis, indigestion or anything they call it. The chiropractor needs to know nothing about that case from a physician's standpoint; it is immaterial." DuVal, head of the Canadian Chiropractic College, says chiropractors have no earthly use for diagnosis. Bacteriology is of no value to the chiropractor, who does not consider that it is worth the infinitesimal mites to group and classify them, count their appendages and try to memorize their names.

There are over one hundred chiropractic colleges in the United States, one of which is in Detroit. Five states permit chiropractic practice. Palmer and Edwards have stated: "Their legislative success lay in their publicity campaign; they educated the public mind to the acceptance of the chiropractic idea * * * chiropractic education must come before chiropractic legislation." The bald, ignorant mechanical appeal of the chiropractic absurdity is easier to hold in ridicule than the monstrous unintelligible Eddy mind cure. The New York Times has said in a review of Peabody's book on Mrs. Eddy that this author has made charges which run the whole gamut from attempted murder to accomplished theft with endless lying all along between, and until the Eddyites convict Mr. Peabody as a slanderer no sane or decent person, man or woman, can afford to give countenance to Christian Science.

It is an interesting situation that confronts the thinking medical man and it is an opportune movement which will soon undertake to present to the lay public the medical news of the day. The profession will undoubtedly have to become accustomed to a new interpretation of the code of ethics. Right will continue to be right and wrong, wrong but a more unrestricted dissemination of medical knowledge will be demanded of the physician.

William James has said, "My experience is what I agree to attend to. Only those items which I notice shape my mind."

THE QUACK SITUATION IN DETROIT

Attention is called to the subjoined report of Major John F. Roehl, Special Investigator of the Detroit Department of Health, involving so-called advertising offices in Detroit, their regulation, prosecution and elimination, covering a period of some two years.

It will be noted that of the 17 advertising offices which existed in Detroit two years ago, 14 have been permanently closed. The remaining three are strictly censured and supervised, which in effect amounts to regulation. Five owners were convicted and seven owners have left the city. Seven doctors were convicted and two have left the city. Five medical licenses have been revoked or are in the course of revocation. Having in mind that Detroit is a city of nearly a million people, one-third of whom are foreigners, the following report is a most remarkable one, not only from the number of quack offices put out of business (14 out of a total of 17), but the very few offices which existed in Detroit two years ago as compared to the number of such offices in Chicago, Pittsburgh, Cleveland, and like cities in this country and Canada. These latter cities literally

teem with quack establishments. Not only is Major Roehl to be congratulated and commended for his efficiency as an investigator and as a prosecutor, but Michigan also is to be congratulated upon the quality of its medical acts, which make possible the success of prosecutions.

If the prosecuting attorneys throughout the state seriously kept in mind their duties involving the prosecution of all violations of state acts (as the constitution of the state provides), there would not be a single unlicensed practitioner of any degree in Michigan. As a rule only the greatest amount of energy, patience and persistence will cause the usual prosecutor to "sit up and take notice." Happily there are exceptions.

The following actions have been taken against the 17 advertising medical offices which existed in Detroit two years ago:

1. Interstate Medical Office, 112 Michigan Avenue. Owner, Max Mero. Doctor in attendance, G. E. Brown. Place raided. Dr. Brown convicted, fined \$200, medical license revoked. Owner (Mero) convicted of practicing medicine without a license, sentenced to six months in the Detroit House of Correction.

2. West Side Medical Company, 4355 Michigan Avenue. Owner, Max Mero. Doctors in attendance, E. B. Gibson and O. A. Fisher. Office closed. Dr. Fisher convicted and placed on probation for one year. Dr. Gibson convicted and fined \$200, and his license revoked. Max Mero (owner) convicted, sentenced to six months in the House of Correction.

3. 5210 Chene Street. Owner, Joseph Barras. Doctor in attendance, O. A. Fisher. Place raided. Barras (owner) convicted of practicing medicine without a license, sentenced to six months in the House of Correction. Place closed. Revocation of Dr. Fisher's license pending.

4. Health Restorium, 6488 Chene Street. Owner, Ben Gross. Doctors in attendance, E. P. Felch and E. B. Gibson. John Borowski charged with practicing medicine without a license. No conviction. License of Dr. E. B. Gibson revoked as above.

5. Corner Chene and Mullet Streets. Owner and doctor in charge, J. H. McKenny. No prosecution. Place removed to 61 Fort Street, West.

6. Michigan Medical Doctors, 103 Michigan Avenue. Owner, Frank Morris. Doctors in attendance, I. M. Cady and J. K. Tietzel. Place raided several times. Doctors and owner arrested. Prosecution failed, as doctors swore they gave all the treatments. Place closed.

7. Dr. John P. Furno, 461 Gratiot Avenue. Place raided. Dr. Furno arrested; given three days to leave town. Office closed.

8. Crawford and Reissman Streets. C. J. Reckling, owner. Doctor in charge, Ernest A. Witwer. Dr. Witwer left town. Office closed. Prosecution of owner resulted in disagreement.

9. Radium Remedies Company, Fisher Arcade Building. Dr. Galton in charge. Place raided. Prosecution under Blue Sky Law against owners of institution. Dr. Galton left town. Place closed.

10. 201-203 Broadway. Owner, Dr. W. N. Salisbury. Place raided and closed.

11. 420 Michigan Avenue. Owner, Dr. W. N. Salisbury. Place raided and closed.

12. Monroe Doctors, 60 Monroe Avenue. Owner, Joseph Herbich. Doctor in charge, Irving Sanders. Place raided and closed. Dr. Sanders arrested, six months in jail. His license has been revoked. Owner, Herbich, left town.

13. 40 Broadway, Medical Doctors Office. Owner, James Schuessler. Place raided a number of times. Has been in charge of Dr. Fish, Dr. Leon Burgess and Dr. C. W. Shaver. Now in charge of Dr. W. N. Salisbury.

14. Fort Shelby Doctors. Owner, Ben Gross. Operated by Julius Feldman. Protected by Dr. Krownstadt. Place raided a number of times. Feldman arrested for practicing medicine without a license. Jumped his bond. Place closed.

15. 739 Forest Avenue, East. Owner, John Wohocaki. Doctor in charge, Chas. Wetherell. Place raided. Owner, Wohocaki, arrested for practicing medicine without a license; convicted and sentenced to six months in the House of Correction. Dr. Wetherell arrested and convicted for fraudulent advertising. Fined \$100. Revocation of license pending.

16. Dr. Russell, 8 Jefferson Avenue, East. This place is owned by a syndicate and protected by Dr. Russell. Still open with Dr. Russell in charge, and, in addition, Drs. Moir and Hanson acting as assistants.

17. 5653 Michigan Avenue. Owner, J. Mowrey. Doctor in charge, Charles Beaver. The latter arrested for performing an illegal operation, sentenced to six months to a year in the House of Correction. Revocation of license pending. Owner, Mowrey, arrested, but failed of conviction.

SUMMARY

Total Advertising Offices.....	17
Closed	14
Doctors convicted.....	7
Doctors left city.....	2
Licenses cancelled or in course of cancellation	5
Owners convicted.....	5
Owners left city.....	7

The numerous convictions during the past year of unlicensed medical practitioners, cult practitioners and licensed physicians in violation of the medical law and other laws are not included in the above report.

TUBERCULOSIS STAMPS

At Christmas I sent a letter to the members of the State Society in the interest of the Michigan Tuberculosis Association. I am very particularly interested in any work that makes for the betterment of the situation in the State, and when we consider that two-thirds of the proceeds from the sale of these stamps remains with the local Association to finance the care or treatment of tuberculous people, it would seem that the physicians would have responded to a man. I am informed that many contributed much more than the one dollar and on the other hand, many did not contribute anything and retained the stamps.

The Michigan Tuberculosis Association is re-

sponsible to the National Association for the stamps that are sent out and for that reason our members should return the stamps or send the one dollar. In the next issue of The Journal I wish you would call attention to this fact and urge the men to return the stamps or the dollar so the Michigan Association can close up the account with the National Tuberculosis Association.

Respectfully, yours,
W. J. KAY.

DETROIT APPEARANCE OF LORENZ, WEDL & CO.*

Now that the curtain is about to go down on the Lorenz vaudeville show in Detroit, the blessings bestowed on our cripples by our distinguished Austrian visitor may be appraised with some regard for the actual facts, and with some hope of enlisting popular interest therein.

Dr. Lorenz has not performed a single operation, public or private, that could not be as well done by five of Detroit's orthopedic surgeons. In the course of the day's work these Detroiters do everything that Lorenz can do.

Dr. Lorenz's widely advertised Lolita Armour case in Chicago involved precisely the same operation that had previously been performed by a Detroit surgeon who is still in practice.

Dr. Lorenz's reputation for his treatment of congenial hip trouble, as first revealed by an Italian doctor, was well deserved in its day; but there are men in Detroit, and all over America, who are quite as adept in administering the same treatment now. Chicago surgeons report that of 26 dislocated hips operated on by Dr. Lorenz on his last visit to America, only two had been successfully reduced.

Dr. Lorenz limited his free clinics in Detroit to the simpler cases, including those that appear spectacular, thus reserving the more difficult cases for private inspection, provided the patient was able to pay his fee.

Dr. Lorenz collected \$100 in advance from every private patient he saw in New York, whether he could do anything for the patient or not. He told a New York newspaper that his "receipts of a single day were never as much as \$3,000." His Detroit fee for private patients has been reported at \$50 and upward, according to the patient's purse.

Dr. Lorenz's operations depend for their success, as do all such operations, not on the skill of the operator alone, but on subsequent treatment, which must continue for two years on the average in orthopedic cases. Some of our own orthopedic surgeons refuse to operate on patients outside their own city rather than risk the failure of subsequent treatment.

Dr. Lorenz has not done anything for charity in the treatment of Detroit's cripples that is not done every week by Detroit's orthopedic surgeons, and every year by other orthopedic specialists whom they bring here for open clinics.

Dr. Lorenz was brought to America by Anton Wedl, a New York lace importer, and another

New York business man whom Mr. Wedl does not name. Dr. Lorenz says he came to repay Austria's debt for America's care of Austrian children. Wedl handles all the money Dr. Lorenz collects.

If that money goes to the relief of Austrian children, as has been assumed by some, Dr. Lorenz and his financiers are not repaying their debt to America, but increasing their obligations.

If it goes into the pockets of Lorenz, Wedl & Co., America will occupy a high place on the sucker list of a professional gentleman engaged in feathering his own nest in the name of philanthropy. That may possibly explain why Dr. Lorenz and his colleagues neglected so many American prisoners in Austrian camps and turned them out with deformities instead of sound limbs.

At any rate, taking up a collection has proved to be an essential part of the Lorenz program in Detroit and elsewhere. He does not even stop at attaching his name to an advertisement for corsets.

Scientifically speaking, the difference between Dr. Lorenz and our own orthopedics is a difference in stage effects dramatically and freely furnished our distinguished Austrian visitor by susceptible newspapers.

Editorial Comments

The seventy-fifth annual meeting of the American Medical Association will be held in St. Louis the week of May 22.

These comments are being written in the latter part of March. You recall the weather? Hence, do not censor us if we fail to enthuse about May flowers and trout streams.

Won't you make a special effort this month to patronize our advertisers? They make your Journal possible and are entitled to your support. See the new ads in this issue. Be a booster, and deal with your patrons.

If you permit yourself to forego the Flint meeting you are forfeiting a meeting that will be filled with most profitable events along the lines of scientific medicine. In addition, you will miss the hospitality of the doctors of Flint. We advise that you reserve the dates of June 7, 8 and 9.

When an individual seeks to be greater than an organization, his usefulness and constructive ability has departed. If he succeeds in his object to attain sole dictatorship, then the organization has lost its influence and prestige. An individual may become a leader in a single activity and develop his directorship, but such success does not imply that automatically he becomes the exalted ruler and potentate with all others only vassals.

"Judging from reports that are floating in the appearance of Lorenz in Detroit has done more harm than any possible good that might be derived from his visit." This is the opinion expressed by a certain member. As far as we are concerned, the Lorenz matter is a closed issue, unless events in the future merit the imparting of further informative facts. We consider our duty

*Editorial—Detroit Saturday Night.

accomplished when we imparted the information contained in a former issue.

A certain newspaper reporter is evidently securing his information from an unreliable source when he is reporting the activities of our State Society. His articles are characterized by his descriptions of "merry wars" that exist only in his distorted imagination and quest for personal gain. We regret that type of reporting and we are not in sympathy with anyone who abets such methods. It is far below the level of common honesty and integrity. It cannot help but serve as a boomerang eventually.

Dr. Olin West, former secretary of the Tennessee State Medical Society, has been appointed Field Secretary of the American Medical Association. The purpose of his appointment by the Board of Trustees is to put into the field a man who will by his efforts bring into closer contact and co-operative activity the component state societies. We have known Dr. West for several years and consider him admirably fitted for this important position. We look forward to a vast amount of good that will ensue upon his efforts and tender him our loyal support. We hope he will be present at our Flint meeting.

"Scale diagnosis," that seems to be a tendency in regard to the nutritional defects of school children. A child is measured as to height and is put on a scale and weighed. If an underweight is registered the child is promptly classified as underfed. It must be remembered that there are other conditions that bring about underweight. A more detailed examination is indicated. A nurse or lay-individual with a pair of scales and yard stick is not competent to conduct these examinations. Additional methods of diagnosis needs to be employed. Shall we not now eliminate these "scale diagnoses"?

The following suggestion has been received: As a practical challenge to the chiro: Let the chairman of the Legislative Committee of the society offer to pay to any person who has been diagnosed by a chiro as having in any degree a subluxated vertebra (not of congenital or traumatic origin and not previously diagnosed by a physician) and who can produce a certificate from an independent and recognized X-Ray laboratory confirming such diagnosis, \$100 and the cost of the X-Ray.

This would bring the matter to the point of "put up or shut up."

It is a thousand to one chance that no money would be paid out or earned on this proposition.

In the March 15, 1922, issue of "The Outlook," Charles K. Taylor has a most excellent article on this subject from which we quote freely.

A delusion held by a great many American people is that any particular individual should weigh a certain number of pounds. Many of our educators do not take into consideration that children are frequently slender because it happens to be a hereditary type, just as it is hereditary for some others to be stockier and heavier than the average.

It is well to remember that it is just as normal and healthy for some children to be more slender

than the average and for others to be stockier than the average as it is for still others to approximate that average. It is a matter of inherited type of build. It is up to us to see that a child is properly developed for his or her normal type of build.

It is certainly quite possible for children to be actually under weight—below the weight they really should have. But you will not learn this by putting him or her on a pair of scales. The point is not "What does the child weigh?" but "Is the child healthy?" The test is not a pair of scales, but a proper medical examination.

When a child is healthy, when a child is in good physical condition, and when that child's muscles are not flabby but firm and efficient, then we may be sure that the child's weight is correct, no matter what the scales show. Instead of putting our emphasis on variations in weight, we should put it on an inquiry into the child's state of health first and on the child's physical development second.

Finally our concern should not be over the child's weight, but over the child's health and development. This means a careful study of our school children in these two respects. It also means a proper feeding wherever real malnutrition or underfeeding actually exists. But the standard to go by is not one of weight but one of health and physical development.

LESSONS FROM LORENZ

Before Dr. Lorenz visited Detroit, prominent medical men throughout Michigan were seeking some means of securing legitimate publicity on medical affairs without violating the ethics of their profession. Their problem was to offset the commercial advertising of the quacks by carrying medical truth to the public without commercializing their profession by buying advertising themselves.

The need of the medical profession for legitimate publicity, and the value of it to the public, were impressively demonstrated by the results of the free publicity accorded Dr. Lorenz in American newspapers. Many intelligent people had never heard of the possibilities in orthopedic surgery until Dr. Lorenz appropriated a large percentage of the newspaper headlines. Comparatively few people knew that there were orthopedic surgeons in Detroit and other American cities quite as skillful as Dr. Lorenz, or that these surgeons were doing their full share of free clinical work.

Popular interest in Dr. Lorenz has a broad educational value, and will continue to have during the months that his patients must rely on local practitioners for treatment. Dr. Lorenz himself recognizes "amazing skill among physicians" in Detroit. Dr. Kidner of Receiving hospital announces after X-Ray examinations that Dr. Lorenz did not effect a complete cure in any of his operations at that institution, and a more notable fact is that the cases that Dr. Lorenz selected for operation were among the simplest. Nevertheless, the staging of the Lorenz operations in such a dramatic way as the newspapers have done it has produced a sort of revival in orthopedic surgery in Detroit and elsewhere.

Yet Dr. Lorenz's specialty involves only one branch of medical practice. There are many others that the public knows as little about. How many people realize, for instance, that it is a

common thing for our oculists to straighten cross-eyes? Publicity will tell them; and the kind of publicity devised by the Michigan medical organizations and the University of Michigan for dissemination through the lecture platform and the News radio station will be welcomed by unfortunate people in search of health and strength.

And it ought to be an effective answer to quackery.—Detroit Saturday Night.

REVISED CONSTITUTION AND BY-LAWS OF THE MICHIGAN STATE MEDICAL SOCIETY

CONSTITUTION

Article I

PURPOSE OF THE SOCIETY

The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of Michigan to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members, and protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of scientific medicine, and to unite with other states to form the American Medical Association.

Article II

COMPONENT MEDICAL SOCIETIES

Sec. 1. The terms county medical society and component county medical society shall be deemed to include all county medical societies now in affiliation with this Society or which may hereafter be organized and chartered by the House of Delegates.

Sec. 2. There shall be but one county medical society in each county affiliated with this Society.

Sec. 3. If there should be an insufficient number of physicians and surgeons in any of the counties of this State to form themselves into a medical society agreeably to law, such physicians may become members of the component county medical society of an adjoining county when eligible by the Constitution and By-laws of such society of such adjoining county.

Article III

COMPOSITION OF THE SOCIETY

Sec. 1. This Society shall consist of Members, Delegates and Honorary Members.

Sec. 2. The Members of this Society shall be the members of the Component County Medical Societies.

Sec. 3. Delegates. The Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective Component County Societies in the House of Delegates of this Society.

Sec. 4. Honorary Members. Honorary members shall be of two classes, resident and non-resident.

Sec. 5. Resident Honorary Members shall be chosen from those who have practiced medicine not less than twenty-five years and have been ac-

tive members in good standing of this Society for at least ten years. They shall be nominated by the Council at any of its meetings and may be elected by the House of Delegates at the Annual Meeting following such nomination. They shall have all the privileges of the Society and receive all publications without the payment of dues. Not more than five Resident Honorary Members shall be elected at any one meeting.

Sec. 6. Any distinguished physician, not a resident of this State, may be elected an Honorary Member, provided he has been nominated by the Council at a previous meeting. Not more than two non-resident Honorary Members shall be elected at any one meeting.

Article IV

HOUSE OF DELEGATES

Sec. 1. The legislative powers of the Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in this Constitution and By-Laws and shall elect the general officers. House of Delegates shall adopt rules and regulations for its own government and for the administration of the affairs of the Society, and delegates to the Council such power and authority as may be necessary for the efficient administration of the affairs of the Society while the House of Delegates is not in session.

Sec. 2. Composition. The House of Delegates is composed of Delegates elected by the Component County Societies. Each County Society shall be entitled to send to the House of Delegates each year one Delegate for every fifty members and one for each additional major fraction thereof; but each County Society holding a charter from this Society which has made its annual report as provided in this Constitution and By-Laws shall be entitled to one Delegate in the event that its membership does not total fifty.

Sec. 3. Officers of the Society shall be ex-officio members of the House of Delegates without power to vote.

Sec. 4. The House of Delegates shall provide for a division of Scientific Work of the Society into appropriate Sections and for the organization of Councillor Districts.

Article V

SESSIONS AND MEETINGS

Sec. 1. The Society shall hold an Annual Meeting at such time, place and duration as the House of Delegates may determine. The session shall be open to all registered members, delegates and invited guests.

Sec. 2. Special Meetings of the Society may be called for General Session on the petition of the Council or by petition signed by 250 members, or upon petition of forty delegates registered at the previous regular session. The call for regular and special sessions shall be issued by the President and Secretary complying with these provisions and shall go forth not later than ten days before the proposed date of holding a regular or special session.

Sec. 3. Special meetings of the House of Delegates may be called by the Council, on a petition signed by thirty delegates who served at the last regular session of the House.

Article VI

THE OFFICERS

Sec. 1. The general officers of this Society shall be a President, four (4) Vice-Presidents, a

Secretary-Editor, a Treasurer, a Speaker and a Vice-Speaker of the House of Delegates, and a Board of Councillors of such number as the House of Delegates may fix from time to time by resolution.

Sec. 2. The President and Vice-President shall be elected for a term of one year. The Secretary-Editor and the Treasurer shall be elected by the Council at its Annual Meeting in January, and shall hold their offices for one year. The Councillors shall be elected for terms of five years each, these terms being so divided that four Councillors shall be chosen each alternate year. All of these officers shall serve until their successors are elected and installed.

Sec. 3. The officers of this Society shall be elected by the House of Delegates on the last day of the Annual Session. No Delegate shall be eligible to any office named except that of Councillor, Speaker or Vice-Speaker. No person shall be elected to any such office who has not been a member of this Society for at least five years.

Sec. 4. Election shall be by nomination and ballot, of the members of the House of Delegates, or, as hereinafter provided.

Article VII

THE SCIENTIFIC ASSEMBLY

Sec. 1. The Scientific Assembly of the Michigan State Medical Society is the convocation of its members for the presentation and discussion of subjects pertaining to the science and art of medicine, its allied specialties, and the problem of public health conservation.

Sec. 2. The Scientific Assembly is divided into Sections, each Section representing that branch of medicine described in its title.

Sec. 3. New Sections may be created or existing Sections discontinued by the House of Delegates. The Scientific Assembly and its Sections shall be conducted in accordance with the rules and regulations set forth in this Constitution and By-Laws.

Sec. 4. The program for the Scientific Assembly shall be arranged by the Committee on Scientific Work.

Article VIII

FUNDS AND EXPENSES

Sec. 1. Funds for meeting the expenses of the Society shall be provided by a yearly fee of five dollars for each member, payable in advance to the Secretary of the Component County Societies; from the profits of its publication and by assessments made by the House of Delegates.

Sec. 2. Funds may be appropriated by the House of Delegates, subject to approval by the Council, for publication, and for such other purposes as will promote the welfare of the Society and the profession, and encourage scientific investigation. The approval of the Council must be obtained before voucher can be issued.

Sec. 3. Funds derived from whatever source or for whatever purpose shall be paid into the Secretary for deposit with the Treasurer.

Sec. 4. Disbursement of funds shall only be made by voucher signed by the chairman of the Council, Secretary and Treasurer. No single officer, Councillor or Committee shall have authority to disburse any of the Society's funds.

Sec. 5. Financial obligations of the Society can only be assumed and incurred by the House of Delegates and the Council.

Article IX

RECIPROCITY OF MEMBERSHIP AMONG STATE SOCIETIES

To broaden professional fellowship among the State Societies, the Michigan State Medical Society, by its President and Secretary, is ready to arrange with other State Medical Societies, having equal requirements, for the interchange of certificates of membership. Members removing from one of these states to another may thus avoid the formalities of re-election.

Article X

REFERENDUM

The General Meeting of the Society may by a two-thirds vote order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the members of the Society for a final vote; and, if the persons voting shall comprise a majority of all the members registered at the session, a majority of such vote shall determine the question and be binding upon the House of Delegates.

Article XI

THE SEAL

The Society shall have a Common Seal, with power to break, to change or to renew the same at pleasure.

Article XII

AMENDMENTS

Sec. 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates registered at that Annual Meeting, provided that such amendment shall have been presented in open meeting at previous session.

Sec. 2. This Constitution shall become effective immediately upon its adoption.

BY-LAWS

Chapter I

MEMBERSHIP

Sec. 1. All members of the Component County Societies who are not in arrears for dues, shall be privileged to attend all meetings and to take part in all the proceedings of the Annual Session, and shall be eligible to any office within the gift of the Society except as otherwise provided.

Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being again elected to membership.

Sec. 2. The name of physician upon the properly certified roster of members, or list of delegates, of a chartered County Society, shall be prima facie evidence of his right to register at the Annual Session in the respective bodies of the Society.

Sec. 3. No person who is under the sentence of suspension or expulsion from any Component County Society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Society; nor shall he be permitted to take part in any of its proceedings until such time as he has been relieved of such disqualification.

Sec. 4. Each member in attendance at the Annual Session shall enter his name on the registration roster, indicating the Component Society of

which he is a member. When his right to membership has been verified by reference to the roster of his Society he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that Session. No member or delegate shall take part in any of the proceedings of the Annual Session until he has complied with the provisions of this section.

Chapter II

GENERAL MEETINGS

Sec. 1. The General Meetings shall include all registered members and delegates who shall have equal rights to participate in the proceedings, discuss and to vote on pending questions. Each General Meeting shall be presided over by the President or in his absence by the Vice-President.

Sec. 2. The following shall be the order of business of the First General Meeting:

1. Call to order.
2. Invocation.
3. Address of welcome.
4. Report of the House of Delegates.
5. President's Address.
6. Special addresses.
7. Resolutions and motions.
8. Appointment of Committees.

SECOND GENERAL MEETING

1. Call to order.
2. Report of House of Delegates.
3. Report of Committees.
4. Resolutions.
5. Introduction of President-Elect.
6. Adjournment.

Sec. 3. The General Meeting shall have authority to create committees or commissions for scientific investigations of special interests and importance to the profession and public and to receive and dispose of the reports of the same; any expense in connection therewith must first be approved by the Council.

Chapter III

HOUSE OF DELEGATES

Sec. 1. A delegate must have been a member of the Society for at least two years.

Sec. 2. The House of Delegates shall meet annually at such date as is designated for the Annual Meeting of the Society. It shall adjourn from day to day as may be necessary to complete its business, specifying its own time for the holding of its sessions.

Sec. 3. Thirty members shall constitute a quorum.

Sec. 4. A delegate once seated shall remain a delegate through the entire session and his place shall not be taken by any other delegate or alternate.

Sec. 5. The officers of the House of Delegates shall be Speaker, Vice-Speaker and the Secretary of the State Society.

Sec. 6. (a) The House of Delegates is the legislative body of the Society. It has authority to adopt and institute such methods and measures as it may deem most efficient for the upbuilding and establishing the interests of the profession in Michigan.

(b) It shall concern itself with the collective and individual interest of its members.

(c) It shall concern itself and advise as to the interests of the profession and of the public in

those matters of legislation pertaining to medical education, medical registration, medical laws and public health.

(d) It shall be active in the education of the public in regard to medical research and scientific medicine.

(e) It shall elect delegates to the American Medical Association in accordance with the rulings of that parent organization.

(f) It shall divide the state into councillor districts and direct the formation of district societies.

(g) It shall have authority to appoint committees, standing or special, from among its members or the members of the Society. Such committees are to report to the House of Delegates and their members may participate in the debate upon their Committee's report.

(h) It shall approve all memorials and resolutions in the name of the Society before the same shall become effective. Provided, that in the ad interim, in the presence of necessity for prompt action, the Council is empowered to act in behalf of the Society.

(i) It shall hear appeals from the Council in matters pertaining to disciplinary action of County Societies.

(j) It shall have authority to create or disband County Societies upon petition of the members residing in the county concerned. It shall issue and revoke charters of County Societies.

(k) It shall elect the officers of the Society, Councillors, Speaker and Vice-Speaker. The Council electing the Secretary-Editor, Treasurer and Chairman of the Medico-Legal Committee.

(l) The House of Delegates shall provide for the division of the scientific work of the society into appropriate sections. It shall prescribe the rules governing the meetings of these Sections and the election of Section Officers.

(m) It shall present a summary of its proceedings at the General Meetings of the Society and publish its minutes in The Journal.

(n) It shall have the following standing and business committees whose duties and method of selection are hereinafter prescribed.

1. Reference Committees on
 - (a) Reports of Council,
 - (b) Reports of Officers and Committees,
 - (c) Legislation,
 - (d) Public Health,
 - (e) Nominations and Elections,
 - (f) Miscellaneous Business.
2. Standing Committees:
 - (a) Legislation and Political Activity,
 - (b) Civic and Industrial Relations,
 - (c) Public Health and Education of the Public,
 - (d) Special Committees,
 - (e) Scientific Committee.

(o) No new business shall be introduced in the last session of the House without unanimous consent of the Delegates except when presented by the Council. All new business so presented shall require three-fourths affirmative vote for adoption.

(p) Robert's Rules of Order shall govern the House of Delegates when not in conflict with the Constitution and By-Laws.

Chapter IV

SECTIONS

Sec. 1. Sections shall hold their meetings at such time and place as will not interfere with General Meetings.

Sec. 2. Sections are subject to the rulings and regulations provided by the House of Delegates for their government.

Sec. 3. At each Annual Meeting, a section chairman shall be elected by the members of the section to preside at the following annual session. A Section Chairman shall be chosen each second year to serve for two years or until his successor is elected.

Sec. 4. The program of each section shall be arranged for by the Scientific Committee of the Society.

Sec. 5. No paper shall be presented, the reading of which consumes more than fifteen minutes. No paper shall be read by title without the consent of the section members. Discussions shall be limited to five minutes. Papers and discussions presented before any section or General Meeting become the property of the Society and shall not be published elsewhere without the consent of the Publication Committee of the Council.

Sec. 6. The following sections shall compose the scientific assembly of the Society:

1. General Medicine.
2. Surgery.
3. Obstetrics and Gynecology.
4. Ophthalmology and Oto-Laryngology.
5. Pediatrics.
6. Public Health.

Chapter V

ELECTION OF OFFICERS

Sec. 1. All election of officers shall be by secret ballot and a majority of votes cast shall be necessary to elect. In the event that there is but one nominee for a given office a viva voce vote may be taken.

Sec. 2. The House of Delegates shall be the electorate college.

Sec. 3. The President, Vice-Presidents, Speaker and Vice-Speaker shall be nominated from the floor of the House.

Sec. 4. A Nominating Committee shall be appointed by the Speaker. The duty of this Committee is to nominate candidates for the office of Councillor, Vice-Presidents, Delegates and Alternates to the American Medical Association, and all other officers that may be hereafter provided for. It shall also submit recommendation for place in which annual meetings are to be held.

Sec. 5. The election of officers shall be the first order of business at the last session of the House.

Sec. 6. The Secretary-Editor, Treasurer and Chairman of the Medical Legal Committee shall be elected by the Council.

Sec. 7. The term of newly elected officers shall begin at the adjournment of the House and shall continue until his successor is elected.

Chapter VI

DUTIES OF OFFICERS

Sec. 1. The President shall preside at all General Meetings of the Society, shall fill all vacancies in consultation with the Council unless otherwise provided for; shall appoint the members of all committees not otherwise provided for; shall deliver the President's Annual Address; shall, as far as practicable, visit component county societies. He shall have a voice in the deliberations of the House of Delegates; he shall be an ex-officio member of the Council.

Sec. 2. The Vice-Presidents in the order of their seniority shall perform the duties of the

President in his absence or upon his request. In case of death of the President or resignation, the first Vice-President shall officiate during the unexpired term.

Sec. 3. The Treasurer shall be the custodian of all the funds and securities of the Society. He shall be elected by the Council and accountable through the Council to the Society. He shall disburse no funds except upon a voucher signed by the Chairman of the Council, the Secretary and the Treasurer. The funds of the Medico-Legal Committee shall not be disbursed except on voucher signed by the Chairman of the Medico-Legal Committee, Chairman of the Council and the Treasurer. He shall invest the surplus funds of the Society only on approval of the Council.

Sec. 4. The Secretary-Editor shall be the custodian of all the records of the Society, he shall conduct all the official correspondence of the Society at the direction of the House of Delegates, the Council and the officers of the Society. He shall be the recording officer of the House of Delegates, the Council and the Scientific Assembly and ex-officio member of those bodies. He shall also discharge the following duties:

1. Collect membership dues, keep membership records and issue membership certificates.
2. He shall conduct the correspondence with Component County Societies.
3. He shall make all required reports to the American Medical Association.
4. He shall act as one of the delegates to the American Medical Association.
5. He shall deposit all funds received with the Treasurer.
6. He shall render an annual report to the Council reviewing the Society's activities, status and imparting recommendations for the advancement of the Society's interests.
7. He shall perform such other duties as the Council may direct. Under the direction of the Council he shall be the Editor and Business Manager of the Journal, performing all duties concerned with the issuance of that publication.
8. He shall superintend the making of all arrangements for the holding of all Meetings in compliance with the Constitution and By-Laws and the instructions of the House of Delegates and Council.
9. He shall send out all official notices of meetings, committee appointments, certificates of election to office and special duties of committees.
10. He shall receive and transmit to the House of Delegates and the Council all Committee and Officers' reports.
11. He shall be elected by the Council and shall be remunerated by a salary, the amount of which shall be fixed by the Council.

Chapter VII

THE COUNCIL

Sec. 1. The Council is the Executive Body of the Society. It shall determine its own time and place of meeting. It shall elect its own Chairman and Vice-Chairman to serve one year. Its Annual Meeting shall be held co-incident with the Annual Meeting of the Society.

Sec. 2. The Council, between meetings of the House of Delegates, may legislate as the House of Delegates upon any matter over which the House of Delegates has jurisdiction, but such legislation shall be consistent with any action taken by the

House of Delegates and shall not, unless in grave emergencies, nullify any action taken by the House.

Sec. 3. Collectively, the Council shall be the Board of Censors of the Society. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the Component Societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or of a County Society, upon which an appeal is taken from the decision of an individual Councillor. Its decision in all cases shall be final. Appeal may be taken to the House of Delegates.

Sec. 4. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such County Societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts until every reputable physician of the State has been brought under the Society's influence.

Sec. 5. It shall, upon application, provide and issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws.

Sec. 6. In sparsely settled sections it shall have the authority to organize the physicians of two or more counties into societies, to be designated by a suitable name so as to distinguish them from district and other classes of societies. These societies when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such counties may be organized separately.

Sec. 7. The Council shall direct and control the publication of the Journal.

Sec. 8. The Council shall approve the expenditure of the funds of the Society. The House of Delegates, by two-thirds vote, may direct the expenditure of any appropriation disapproved by the Council. In the event the Council does not approve action by the House of Delegates appropriating definite amounts of expenditure, it shall submit within twenty-four hours its reasons therefor to the House of Delegates. In case of dispute the action of the House shall be final.

Sec. 9. The Council shall appoint the members of the Medico-Legal Committee and supervise the duties and work of that Committee.

Chapter VIII

STANDING COMMITTEES' DUTIES

Sec. 1. Committee on Legislation and Political Activity shall consist of five members appointed by the President. Under the direction of the House of Delegates, and in the ad interim, the Council, it shall represent the Society in securing and influencing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion and shall endeavor to shape legislation so as to secure the best results for the whole people. It shall utilize every organized influence of the profession to promote a general influence in local, state and national legislative affairs and elections.

No bill or proposed law or amendment thereto shall be introduced in the State Legislature or sent to any member thereof in the name of this Society or by any of its committees until such proposed legislation shall have been indorsed and approved by the Council of this Society in regular session.

After any proposed legislation shall have been indorsed by the Council, it shall be referred to the Committee on Public Policy and Legislation, who shall thereupon have it presented for passage at Lansing, and take such steps as may be necessary to secure for it the united indorsement of the Medical Profession throughout the State, and to that end it shall be the duty of the Secretary of this Society under the direction of the Committee on Legislation and Public Policy, to have printed and issued to the various County Societies, or to each member thereof as the case may require, circular letters and letters of indorsement to be addressed by the physicians to their representative at Lansing, asking for the support and passage of the Legislation so approved.

It shall submit an annual report with recommendations to the House of Delegates.

Sec. 2. Committee on Scientific Work:

This Committee shall consist of the President, Secretary and officers of constituted sections. It shall be the duty of this committee to arrange the programs for the section meetings.

Sec. 3. Medico-Legal Committee:

The Medico-Legal Committee shall consist of an Executive Board of five, to be elected by the Council, and also one member from each Component Society to be elected by the component societies. The Executive Board shall be elected for one, two, three, four and five years, respectively, and thereafter one member shall be elected each year to hold office for five years. All other members of the Committee shall be elected for one year.

The members of the Executive Board shall be elected at the January meeting of the Council and shall immediately assume office. Members of the Medico-Legal Committee shall be elected one by each component society participating in the defense fund, at the first meeting after September 1st and shall assume office January 1st following.

The Council at its January meeting shall elect one of the five members of the Executive Board as Chairman, whose term of office shall be for one year. He shall also act as Chairman of the entire Committee.

No disbursement shall be made from the Medico-Legal Fund without the signatures of the Chairman of the Executive Board and the Chairman of the Council or the Secretary of the State Society.

The salary of the Chairman of the Medico-Legal Committee shall be fixed by the Council, annually.

The Executive Board shall report to the Council at its annual meeting giving full particulars of the work of the Committee and a detailed statement of income and disbursements.

It shall engage by the year a competent firm as general attorneys, and fix their compensation. Their duties shall be to compile from all available sources court decisions fixing the law of liability of physicians for civil malpractice, such compilations to be the property of the Society and also to defend any member of the Society not in arrears, when sued or threatened with suit for civil malpractice, or to supervise such defense through a local attorney.

Members in arrears after April 1st shall not be entitled to defense for any suit, the cause of action

of which arose while in arrears, and any member sued or threatened before joining the Society or before the organization of the Medico-Legal Fund must pay the actual cost of defense in such suit.

With the exception above noted, the Medico-Legal Committee shall undertake the defense of any members of the Society sued or threatened with suit for civil malpractice through all State and Federal Courts operating in Michigan, regardless of the time when the alleged cause for action arose and shall also defend any action for civil malpractice against the estate of a deceased member, provided he or she while living has conformed to the foregoing requirements.

In the event that during any one year the demands upon the Medico-Legal Fund be large enough to exhaust it, the Council shall be authorized to loan sufficient funds from the treasury of the State Society to meet the contingency.

It shall be the duty of any member of the Society threatened with action for civil malpractice to confer at once with the member of the Medico-Legal Committee from his component society and with his aid prepare the case and forward the same to the Chairman of the Executive Board. He must agree not to settle or compromise his case without the consent of the Executive Board and the General Attorneys. He may recommend, in conjunction with the local member of the Medico-Legal Committee, the best available local attorney, but the authority to engage the services of local attorneys shall lie with the Executive Board and their General Attorneys. The local attorney chosen shall enter the appearance of his client and undertake his defense under the supervision of the General Attorneys.

All attorney's fees and costs will be paid from the Medico-Legal Fund and defense carried through all Federal and State Courts operating in Michigan but under no circumstances shall this fund be liable for any damages declared against an unsuccessful litigant.

Sec. 4. Committee on Industrial and Civic Relations:

The Committee on Industrial and Civic Relations shall consist of ten members appointed annually by the newly elected president. The duties of the Committee shall be:

To study, gather facts and become intimately acquainted with all and every movement wherever and by whosoever agitated, proposed or attempted to enact or be enacted that has as its secret or avowed object the providing of social, commercial or industrial medical insurance for the public, civic or commercial employes of persons; or for the providing of medical or surgical care to a group or groups of individuals singly or collectively.

To devise and advise, whenever necessary, intelligent action on the part of this Society upon these questions.

To represent this Society at any and all conferences, such as civic or commercial propagandists may hold and by which dignified recognition is extended to the medical profession.

To report annually and in writing, its findings, recommendations and information to the House of Delegates. Should occasion arise in the interval between the stated meetings of the House of Delegates and prompt action become imperative, the Committee is to present its findings to the Chairman of the Council and President, who are empowered how to proceed in such emergencies by this Constitution and By-Laws.

Committee on Public Health Education:

This shall be composed of seven members as follows: Three from the Council, three from the membership at large and the Secretary. Its duty is to join with a similar committee appointed from the Medical Faculty of the University of Michigan and the President of the University for the purpose of carrying out an educational program to enlighten the public of Michigan in regard to scientific medicine.

Sec. 6. The Committee on Industrial and Civic Relationship shall consist of ten members appointed annually by the newly elected president.

The duties of the Committee shall be:

To study, gather facts and become intimately acquainted with all and every movement wherever and by whosoever agitated, proposed or attempted to enact or be enacted that has as its secret or avowed object the providing of social, commercial or industrial medical insurance for the public, civic or commercial employes of persons; or for the providing of medical or surgical care to a group or groups of individuals singly or collectively.

"To devise and advise, whenever necessary, intelligent action on the part of this Society upon these questions.

"To represent this Society at any and all conferences, such as civic or commercial propagandists may hold and by which dignified recognition is extended to the medical profession.

"To report annually and in writing, its findings, recommendations and information to the House of Delegates. Should occasion arise in the interval between the stated meetings of the House of Delegates and prompt action become imperative, the Committee is to present its findings to the Chairman of the Council which is empowered how to proceed in such emergencies by this Constitution and By-Laws."

Chapter IX

EMERGENCY

Sec. 1. When prompt speech and action are imperative, authority to speak and act in the name of the Society is invested in the Council.

Chapter X

ANNUAL DUES

Sec. 1. The annual assessment shall be five dollars. The Secretary of each county society shall collect and forward the same to the State Secretary.

Sec. 2. Members in arrears after April 1st of the official year shall be suspended and shall not participate in the benefits of the society until reinstated.

Chapter XI

COUNTY SOCIETIES

Sec. 1. All County Societies now in affiliation with the State Society or those which may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws or with the code of ethics of the American Medical Association, shall upon application to the Council, receive a charter and become a component part of this Society, subject to the condition described in Section four of this Chapter. A roster of its officers and members and the annual assessment and subscription to the Journal for each member must accompany the application.

As rapidly as can be done after the adoption of this Constitution and By-Laws a medical society shall be organized in every county in the State in which no component society exists.

Sec. 3. Charters shall be issued only upon approval of the Council, and shall be signed by the President and Secretary of this Society. The Council shall have authority to revoke the charter of any Component Society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws or the code of ethics of the American Medical Association.

Sec. 4. Only one Component Medical Society shall be chartered in any county. Where more than one County Society exists, friendly overture and concessions shall be made, with the aid of the Councillor for the district if necessary, and all of the members brought into one organization. In case of failure to unite an appeal may be made to the Council which shall decide what action shall be taken.

Sec. 5. Each County Society shall be the judge of the qualifications of its own members; but, as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered practitioner of medicine shall be eligible to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every eligible physician in the county to become a member.

Sec. 6. Any physician who may feel aggrieved with the action of the Society of his county in suspending or expelling him from membership shall have the right of appeal to the Councillor of his district.

Sec. 7. In hearing appeals the Council or the Councillor may admit oral or written evidence as in his or its judgment will best and most fairly present facts. Efforts at conciliation and compromise shall, however, precede all hearings.

Sec. 8. When a member in good standing in a Component Society moves to another county in this State he shall be given without cost a transfer card good for the time for which his dues are paid, not exceeding one year from the first of January following the date of issue. This card shall be void if not accepted by a Component Society before such limit expires.

Sec. 9. A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

Sec. 10. Each County Society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At the Annual Meeting in the fall, or at the first meeting after January 1, due notice having been given each County Society shall elect annually a delegate and alternate, or delegates and alternates, to represent it in the House of Delegates of this Society in the proportion of one delegate to each fifty members or major fraction thereof. The Secretary of the County Society shall immediately send the list of its delegates to the Secretary of this Society.

Sec. 12. The Secretary of each County Society shall keep a roster of its members, and a list of the non-affiliated physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State and such other information

as may be deemed necessary, upon blanks supplied him for the purpose, together with remittance for such collections, to the State Secretary.

Chapter XII

These By-Laws may be amended by majority vote of the delegates present, after the amendment has laid on the table one day. These By-Laws become effective immediately upon adoption.

Deaths

The death of Doctor J. G. Turner of Houghton brings a sadness throughout the state. His passing is a loss to the people and the profession.

Doctor Turner was born in Baltimore, Md., almost 65 years ago. His father was a prominent Baltimore merchant and was well known here through visits he paid his son. Doctor Turner was graduated from the University of Maryland in the year 1878. He came west after about a



J. G. TURNER, M. D.

year's practice in Baltimore and located in L'Anse in 1879, under a government appointment. For many years he was practically the only physician at L'Anse. In 1892 when the Indian agency was abolished at L'Anse, Doctor Turner became acting Indian agent as well as physician.

In 1898 Doctor Turner came to Houghton county and went to the Arcadian Mine as physician. He remained there until 1900 when he moved to Houghton and became physician for the Isle Royale mine. Since 1900 he has been en-

gaged in the practice of medicine in Houghton in addition to his position as mine physician for the Isle Royale.

About four years ago Doctor Turner succeeded the late Doctor E. T. Abrams as a member of the state board of health and later as a member of the state advisory council of health when that body succeeded the former state board. Doctor Turner at the time of his death was vice president of the state council.

Doctor Turner possessed a wonderful constitution and while his health had been threatened on several occasions, he took excellent care of himself and always appeared hale and hearty. About a week ago he returned from a trip to Cuba and the southern states and on his return seemed to be enjoying unusually robust health. For that reason his sudden death yesterday came as a great shock to the community in which he made his home for so many years.

Doctor Turner is survived by two daughters.

Doctor Russell W. Brown was born in Petersburg, Mich., March 27, 1864, and died in Bay City, April 3, 1922. He graduated from the Detroit College of Medicine in 1889. The doctor practiced medicine in Bay City for the past 28 years. Besides his widow he leaves a son and daughter.

Doctor Thomas A. Dewar was born in 1871 and died in Detroit April 4, 1922, after a brief illness. He graduated from the medical department of McGill University in 1893. The doctor was a member of the Detroit Lodge of Masons, Wayne County Medical Society, Michigan State Medical Society and American Medical Association. He leaves a widow and one daughter, Miss Margaret L. Dewar.

Doctor J. W. Schureman was born in Lenawee County in 1879 and died in Detroit, April 6, 1922, from pneumonia. He graduated from the Detroit College of Medicine in 1907. He was a member of the Wayne County Medical Society, the Michigan State Medical Society and the American Medical Association. He is survived by his widow and two small children.

Doctor J. M. Easton died February 23, 1922, at his home in Detroit. Doctor Easton was born in 1859 and was a graduate of the Homeopathic Medical College of Missouri.

Doctor Joseph Corgan died in Capac, Mich., February 23, 1922. Doctor Corgan was a graduate of the Georgetown University School of Medicine.

Doctor Jason W. Jackman died in Bad Axe, Mich., on February 13, 1922. Doctor Jackman was born in 1848 and was a graduate of the Detroit Medical College.

Dr. George E. Moore of Ironwood was born in 1860 and died March 3, 1922. He was a graduate of the Rush Medical College.

The death of the following doctor, not a member of the Society, has been reported: Doctor Winona Long of Battle Creek.

IN MEMORIAM

On January 31, 1922, death claimed our beloved colleague, Doctor David Inglis. He was a descendant of one of Detroit's oldest families. As a scientist, scholar and educator he stood pre-eminent in his profession and was looked upon as the savant of his specialty by his professional brethren. He died at his winter home at Tryon, N. C., at the age of 72 years.

Doctor Inglis was a son of Doctor Richard Inglis, one of Detroit's early residents, and himself a prominent physician. He was born December 27, 1850, in the Inglis homestead, then located at Woodward and Gratiot avenues, where the Kern's Dry Goods store now stands. After his graduation from the University of Michigan, and the Detroit Medical College, Doctor Inglis studied in the Bellevue Hospital Medical College, New York City, and was graduated from that institution in 1872. Later he spent two years in Vienna and Berlin and then began to practice in Detroit at the age of 24. Five years later he married Jenny Baxter at Jonesville, Mich.

Many were the honors bestowed on Doctor Inglis as his reputation grew. He was president of the Michigan State Medical Society in 1906 and later of the Wayne County Medical Society. At the time of his retirement two years ago he was professor of nervous and mental diseases in the Detroit College of Medicine and Surgery; consulting neurologist to Harper and St. Mary's Hospitals, and a nationally known authority on mental diseases.

On retiring he left his Grosse Isle home and moved to Ann Arbor, where his two brothers, James Inglis, president of the American Blower Co., and William Inglis of the William Inglis Iron Works, and his sister, Mrs. A. F. Smith, reside. A second sister, Agnes Inglis, lives at River Rouge. Doctor Inglis left a widow, a son, Baxter Inglis, who is attached to the Wright Flying Field, Dayton, O., and two daughters, Mrs. Dorothy Milliken of Bay City, and Lois Inglis, who teaches school in the west.

Doctor Inglis had been spending the winter months in North Carolina for the last three years.

It is a difficult matter to put in words those feelings we have towards strong personalities. A great personality, in fact, defies description. It is something which transcends the flesh and achieves for the possessor a kind of immortality.

Doctor David Inglis was for many years one of the outstanding figures in medical circles of Detroit and of Michigan. Those who knew him in his prime recall the slender figure, erect in stature and immaculate in attire, who even in his physical attributes was a model for emulation of the student.

Doctor Inglis held the chair of Neurology and Psychiatry in the Detroit College of Medicine for many years. His grasp of his subject was so complete that he could lecture without any apparent effort hour after hour. He had the gift of tongues. He was never at a loss to "point a moral or adorn a tale," to elucidate his subject with apt illustration or with quotation as the case might be. He was kindly to a fault and the student, who made his way through the labyrinthian intricacies of the nervous system for the first time, felt that he had a sympathetic guide in the person of Doctor Inglis.

To those of us whose good fortune it was to hear him from time to time in the State and County Medical Society, his dissertations on his cherished theme were an intellectual treat. Doc-

tor Inglis had a rare faculty, which was manifest in his lucid, forcible diction. His medical papers, though somewhat infrequent, showed a grasp of the subject, an exquisiteness of expression as well as studied detail, which portrayed the ordered sequence of the mental processes which produced them. Approximately two years ago Doctor Inglis took up his residence in Ann Arbor, which was a definite retirement from a life of prolonged activity. It seemed a fitting closure for an active professional career that its twilight should be spent among the hills and cloistered verdure of a college town.

Doctor Inglis entertained a philosophical view of life which is possessed by but very few. He thought intensely and his judgment was mature no matter what the theme. To converse with him was a mental stimulus, or to make free use of a Biblical expression, "To touch the hem of his garment" was to come away richer than before. A certain English physician who was consulted by Theodore Roosevelt was wont to say that he felt refreshed and stimulated after visits to his office by the late lamented president. Doctor Inglis possessed this power to a degree; it is one of the inexplicable peculiarities of a strong personality. He gives out: "Nec tamen consumebarur." We may imagine the patient of David Inglis leaving his office renewed in spirit, for verily the doctor cold

"Minister to a mind diseased

Pluck from the bosom a rooted sorrow

Raze out the hidden troubles of the brain."

Now that he has passed to that undiscovered country from whose bourne no traveler returns, we might imagine his uttering the remarks of Mr. Valiant-for-Truth, "My sword I give to him that shall succeed me in my pilgrimage and my courage and skill to him that can get it. My marks and scars I carry with me to be a witness for him that I have fought his battles, who will be my rewarder! When the day that he must go from hence was come many accompanied him to the river side into which, as he went, he said, 'Death, where is thy sting?', and as he went down deeper he said, 'Grave, where is thy victory?' So he passed over and all the trumpets sounded for him on the other side."

Necrology Committee.

State News Notes

COLLECTIONS

Physicians Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer,** 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Would you like a good city General Practice? Have the chance of a lifetime for a hustler. Practice goes with the sale of location. Good fees, largely cash, and mostly American peoples. If you can finance a good thing after seeing it, write at once. Address Doctor M. D., Lansing, Mich.

CORRECTIONS

The Detroit Society of Internal Medicine gave the dinner to Dr. Thomas McCrae, March 20, 1922, at the University Club and NOT Dr. W. M. Donald.

The subject of Dr. W. P. Manton's paper March 28, 1922, before the Detroit Academy of Medi-

cine was "Desultory Comments on the Rejuvenated Propaganda for Birth Control."

Dr. Malcolm H. Smith has located in Muskegon.

Dr. W. A. Hagen of Ravenna is desirous of selling his practice.

Dr. C. B. Burr has returned to Flint following a winter spent in California.

Don't forget to make your hotel reservations for the annual meeting in Flint.

Dr. and Mrs. George G. Caron of Detroit spent the month of March in the south.

Dr. and Mrs. W. A. Spitzely of Detroit spent a few weeks in March in Virginia Hot Springs.

Dr. James W. Inches returned to Detroit, March 27, 1922, from a month's vacation at Miami, Fla.

Dr. D. A. MacLachlan of Detroit spent the greater part of March and April in Pinehurst, N. C.

Dr. Charles H. Mayo of Rochester addressed the Kent County Medical Society at its meeting of April 26.

Engelbert Andries, father of Dr. Joseph H. Andries and Dr. Ray C. Andries of Detroit, died April 6, 1922.

Dr. and Mrs. F. J. W. Maguire returned to Detroit, March 18, 1922, from a five weeks' stay in Miami, Fla.

Dr. James M. Robb of Detroit was married, April 19, 1922, to Miss Virginia R. Yerger of Memphis, Tenn.

Dr. and Mrs. H. R. Varney returned to Detroit the latter part of March from a month's stay in Augusta, Ga.

The engagement of Dr. James B. Seeley and Miss Irene M. Cicotte, both of Detroit, was recently announced.

A daughter, Fabel Dorothy, was born to Dr. and Mrs. Henry A. Adrounie of (Lacey) Bellevue, R. F. D. 3, Mich., April 2, 1922.

Ellis Rigby, chiropractor of Detroit, was convicted in Judge Faust's Court, March 24, 1922, of practicing medicine without a license.

Henry F. Vaughan, Health Commissioner of Detroit, talked April 2, 1922, on "The Health of the Public" over the Detroit News Radio.

Mrs. H. W. Longyear has given the library of the Wayne County Medical Society a life-sized portrait of the late Dr. H. W. Longyear.

Dr. Joseph C. Charest of Detroit was convicted

of practicing medicine without a license, in Judge Keidan's Court, April 4, 1922.

Dr. F. B. Tibbals gave an address on "Some Recent Medical-Legal Cases" before the Detroit Academy of Medicine, April 11, 1922.

Joseph Dakin of Detroit, chiropractor, was convicted of practicing medicine without a license in Judge Keidan's Court, April 3, 1922.

Paul Lewis (colored) of Detroit was convicted of practicing medicine without a license, in Judge Keidan's Court, April 10, 1922.

Zell B. Mead of Detroit, chiropractor, was convicted of practicing medicine without a license, in Judge Keidan's Court, April 6, 1922.

Reginald Gates of Detroit, chiropractor, was convicted in Judge Keidan's Court, March 27, 1922, of practicing medicine without a license.

Dr. W. P. Manton read a paper on "Desultory Comments on the Rejuvenated Propaganda" before the Detroit Academy of Medicine, March 28, 1922.

Dr. Hugh Cabot of Ann Arbor spoke before the Detroit City Club, April 5, 1922, on "The Development of Medicine in Relation to the Community."

Dr. E. G. Martin read a paper on "Rectal Anaesthesia and Unusual Cases in Proctology" before the Highland Park Physicians' Club, March 2, 1922.

Grace Hospital, Detroit, recently announced the opening of the Department of Deep Therapy X-Ray for the treatment of deep seated, malignant growths.

How often do you patronize our advertisers? Please turn to that section of this issue and place your business among those who make your Journal possible

A free lecture on "The Conservation of Vision" was given March 24, 1922, in the Auditorium of the Wayne County Medical Building by Dr. Carl McClelland of Detroit.

Dr. Frank Sladin gave a luncheon at the Detroit Athletic Club and Dr. W. M. Donald a dinner at the University Club for Dr. Thomas McCrae of Philadelphia, March 20, 1922.

Doctors Hugh Cabot, W. H. McCracken and Henry F. Vaughan attended a three days' conference in Washington, D. C. (called by the Surgeon General), March 13, 14 and 15, 1922.

The American Proctologic Society will hold its Twenty-third Annual Meeting, May 22 and 23, 1922, at St. Louis. Dr. Granville S. Hanes of Louisville is President this year.

The following physicians were recently appointed honorary trustees of the new Children's

Hospital of Michigan: Doctors Joseph Aarons, Robert Foster, H. A. Shafor, Ray Connor and Guy L. Kiefer.

Books and journals have recently been presented to the library of the Wayne County Medical Society by Mrs. H. W. Longyear by the National Pathological Laboratories, and by Dr. S. E. Sanderson.

The Detroit Society for Neurology and Psychiatry held its regular meeting, April 6, 1922, at the State Psychopathic Hospital, Ann Arbor. The usual dinner at the Michigan Union followed the meeting.

The Detroit Medical Club held their usual dinner at the Medical Building, March 16, 1922. Dr. T. M. Meader spoke on "The Prevention of Diphtheria and Botulism" and made some interesting remarks on "Bubonic Plague."

Reprints of the Beaumont Lectures, given by Dr. W. G. McCallum of Baltimore on "Inflammation," are in the hands of the printer. Orders for the same may be sent to Dr. James E. Davis, care of the Detroit College of Medicine and Surgery.

Dr. W. A. Dewey of the Homeopathic Medical School, Ann Arbor, was married, April 3, 1922, to Mrs. Camille Roe of Boston. Dr. Dewey will retire from the University Faculty in June and will spend the coming year with Mrs. Dewey in travel in Italy and France.

The Detroit Society of Internal Medicine held its regular meeting at the University Club, March 27, 1922. Dr. Fred Buesser presented a case of carotinaemia occurring in a patient suffering from diabetes mellitus. Dr. George McKean read a paper on "Bulbo-Poliomyelitis." Dr. John Walkins presented the abstract of the evening.

Major General George E. Bell recently assigned Colonel Angus McLean to Headquarters of the 16th Corps Medical Service, Colonel McLean has been authorized to establish headquarters in Detroit. He will have command of all the medical and sanitary units in the 16th Corps, which includes the 85th, 86th and 101st Divisions.

At the annual meeting of the Tri-State Medical Association, held in Ann Arbor, April 11, 1922, the following officers were elected: President, Dr. G. M. Livingston of Highland Park; Vice-President, Dr. T. J. Creel of Angelo, Ind.; Secretary, Dr. C. W. Haywood of Elkhart, Ind., and Treasurer, Dr. J. A. Weitz of Montpelier, O.

The Academy of Surgery of Detroit held its regular meeting in the Highland Park General Hospital, March 10, 1922. Dr. F. C. Witter read a paper on "Sarcoma of the Tibia," Dr. J. N. Bell on "Buried Loop Operation for Retro-Deviation of the Uterus," and Dr. J. A. MacMillan on "Portal Circulation, a Factor in Abdominal Surgery."

According to the recently revised Rules and Regulations of the Michigan Department of

Public Health, cases of typhoid fever cannot be released until two negative feces examinations, taken at intervals of not less than one week after clinical recovery, have been made. The object of this rule is to get rid of unrecognized and unknown typhoid carriers.

Dr. Rudolph Lamber of Battle Creek has recently been named the tuberculosis expert of the Rehabilitation Committee of the Eighth District Veterans' Bureau in Chicago. This district includes Michigan, Illinois and Wisconsin. It will be Dr. Lambert's duty to visit the tuberculosis sanitariums in these states and to report on the treatment of the ex-soldiers.

The Detroit Ophthalmological and Otological Club met April 5, 1922, at dinner as guests of Dr. Waldeck. Following the dinner, Mr. Charles F. Campbell spoke on "Three and a Half Years' Work With the Soldiers Blinded in the War," and Mr. Robert B. Irwin spoke on "Methods of Educating Blind Children in the Public Schools of Ohio." Both papers were illustrated with lantern slides.

Judge T. M. Cotter of the Detroit Municipal Court decided March 23, 1922, that Miss Irene Wendler, fiancée of Dr. Charles M. George of Detroit, who is serving a sentence in the Detroit House of Correction on conviction of performing an illegal operation, was not guilty of obtaining money under false pretenses when she sold the physician's house for \$28,000. It was shown that Dr. George had given her a deed to the property.

Archibald McGilp, W. H. Currier and Margaret Burt, Pontiac chiropractors, recently arrested on a charge of practicing medicine without a license, have been held for trial in the Circuit Court of Pontiac. McGilp and Currier were arrested for the same thing last year and were sentenced to serve 65 days in the Detroit House of Correction and to pay fines of \$200 each. Governor Gioesbeck released them after they had served four weeks.

In Toronto, April 11, 1922, pandemonium reigned in the Private Bills Committee of the Ontario Legislature when a deputation, numbering hundreds, swamped the committee room in support of the bill to provide the incorporation of the chiropractic college. A. W. Rebuck, representing the college, pointed out that the bill was for the ordinary incorporation of the college. Dr. Forbes Godfrey and others could find no good in the cult and opposed the bill. Incorporation was refused by unanimous vote.

The first effort on the part of any organization in Michigan to perpetuate in art the faces of this state's greatest sons and daughters was made early in April, 1922, when the Detroit Library Commission selected nine men and one woman, whose portraits will be painted on medallions by Mr. F. J. Wiley. These medallions will be hung in the Loggia of Detroit's new library. Dr. David Osborn Farrand and Dr. Douglas Houghton are two of the ten. Dr. J. B. Kennedy is a member of the present Library Commission which made the selection.

The following Michigan physicians attended the Annual Conference of the Congress on Internal

Medicine, held in Rochester and Minneapolis, April 5, 6, 7, 8, 1922—Doctors C. D. Aaron, A. D. Holmes, B. R. Shurly, W. M. Donald, W. J. Wilson, J. G. Harvey, F. G. Buesser, E. H. Sichler, H. B. Garner, F. T. Stephenson, L. F. Wendt, A. S. DeWitt, B. G. Lockwood, A. F. Jennings, H. R. Carstens, R. W. McKeen, all of Detroit, and C. H. Johnston of Grand Rapids C. G. Parnell of Ann Arbor, M. A. Mortensen of Battle Creek, and W. J. Kay, W. H. Marshall and F. G. Miner of Flint.

County Society News

ACADEMY OF SURGERY OF DETROIT

The regular meeting of the Academy of Surgery of Detroit was held at the Highland Park General Hospital on Friday evening, March 10, at 8 o'clock.

The program for the evening was as follows:

"Sarcoma of the Tibia," presentation of case, Frank C. Witter; "Buried Loop Operation for Retro-Deviation of the Uterus," John N. Bell; "Portal Circulation, a Factor in Abdominal Surgery," James MacMillan.

IRA G. DOWNER,
Secretary.

BAY COUNTY

A regular meeting was held at the Wenonah hotel, Monday evening, April 10, with 45 members present. Dr. W. R. Ballard entertained the society with a dinner that night and Dr. Louis Klein, Endocrinologist for Parke, Davis & Co., Detroit, gave one of the finest talks of the year on "Gland Therapy, Its Basis and Rational Application." The paper was illustrated with lantern slides and was a masterful expose of the subject.

Resolutions of respect to Dr. Russell Brown, whose recent death was announced, were adopted at the meeting.

Announcement was made of the affiliation of the Midland and Bay County Societies. Midland Society will maintain its identity in Midland but will become associate member of Bay County Society. The Midland members in attendance were given a rousing welcome.

A delegation from Saginaw attended the meeting and their presence was truly appreciated. It is hoped to have the Bay County Society cooperate with the local Rotary Club in putting on an Orthopedic Clinic in May.

L. FERNALD FOSTER, M. D.,
Secretary.

GENESEE COUNTY

The Genesee County Medical and Dental Societies met in joint session on Wednesday, April 12, 1922. Dr. Claire Straith of Detroit spoke on "Hare Lip and Cleft Palate Surgery." His address was wonderfully well illustrated by both lantern slides and moving picture films of the operations. Our members were much impressed by the possibilities of instruction in surgery by means of moving pictures.

The Genesee County Medical Society met on Wednesday, March 29, 1922, President Miner presiding. Mr. Talafierro, Deputy Collector of Internal Revenue, spoke on the Harrison Act. Dr. E.

W. Haas of Detroit gave a splendid paper on "Hypertension." He briefly reviewed the various theories presented to account for the condition. He made it very clear that the disease was not synonymous with Arteriosclerosis. He dealt very fully with the etiological factors and advised rational treatment. The very full discussion following the paper showed how well the essayist had interested his hearers.

W. H. MARSHALL,
Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The March meeting of the Gratiot-Isabella-Clare County Medical Society was held in Alma Thursday, March 16, at 7 p. m. Dr. H. W. Plaggermeyer and Dr. L. W. Hull of Detroit were the speakers. Dr. Plaggermeyer talked on "The Relationship of the Prostate to the Kidneys and Heart." He explained the anatomy of the prostate and showed by drawings how the enlargement of the median lobe pushed up the neck of the bladder gradually increasing the residual urine. This increases the back pressure on the ureter. Then the kidney has to work harder to force the urine into the bladder. As the pressure in the ureter is gradually raised from a normal of 30 m. mercury, the blood pressure has to raise to push the blood through the glomerulae. This in turn causes cardiac hypertrophy, so we have the complete picture.

This is a very brief synopsis. The doctor has to be heard to appreciate how plain he made the picture. One particular point he emphasized was removal of the prostate is never an emergency operation. This pressure must not be lowered suddenly, but by degrees so as to let the cardiovascular-renal system adjust itself to the new conditions.

Dr. L. W. Hull then read a number of his stories, showing pyelograms of each with a report of the operative findings.

This is our first experience with an evening meeting. The vote was unanimous that we continue them when the train schedule permits the visiting doctors to come and return the same day.

We have had a dispute as to whether a member could invite a homeop to our meetings. This brought out the following resolution, which carried unanimously: "Resolved, That it is no violation of medical ethics for a member to invite to the meetings of this society any interested person."

E. M. HIGHFIELD, M. D.,
Secretary.

MEETING OF THE NORTHWESTERN MICHIGAN CLINICAL SOCIETY

Meeting of the Northwestern Michigan Clinical Society was held at Cadillac, Mich., March 23, 1922.

The following members were present:

Dr. Coates, Kaleva; Dr. Decker, Lake City; Dr. Yoe, Big Rapids; Dr. Neihardt, South Boardman; Dr. Fralick, Maple City; Dr. Holdsworth, Traverse City; Dr. Swartz, Traverse City; Dr. Burwell, Kalkaska; Dr. J. F. Doudna, Lake City, and Drs. C. E. Miller, G. D. Miller, David Ralston, J. M. Wardell, S. C. Moore, W. Joe Smith, J. F. Gruber and O. L. Ricker, Cadillac.

The program for the day, which was in charge of Drs. Moore and Smith of Cadillac, was opened at Mercy Hospital at 2 P. M., with one of the Grand Rapids teams of the Michigan State Medical Society: Dr. R. J. Hutchinson, Surgery. Dr. C. H. Karschner, Internal Medicine; Dr. S. C. Moore, X-Ray.

The doctors were met by Cadillac physicians and were entertained at Mercy Hospital for noon luncheon.

Dr. Hutchinson opened the Clinic with a surgical operation of T. B. glands bilateral of the neck. Dr. Moore gave a short talk on the value of X-Ray in these cases.

Following this was a very interesting paper given by Dr. Karschner on diseases of the right upper quadrate. This paper dealt principally with gall bladder infections. The paper was a timely one and brought out a lengthy discussion from physicians present. Following Dr. Karschner's paper, Dr. Moore again took charge of the meeting and discussed several cases of gastro intestinal trouble and interpreted X-Ray findings in these cases.

A very interesting case was presented by Dr. Gruber, in which the case of an Hour Glass Stomach was brought out and demonstrated how same could be confused with nervous contraction of the stomach being relieved by administration of Belladonna. Several interesting cases were exhibited later, being patients at the Hospital.

The meeting adjourned and reported at the Hotel McKinnon at 6:30, where an elaborate banquet had been prepared and 22 physicians were seated at same. Election of officers followed the banquet, with the following results: Dr. S. C. Moore, Cadillac, President; Dr. J. M. Wardell, Cadillac, Vice-President; Dr. O. L. Ricker, Cadillac, Secretary and Treasurer.

A motion was made to allow all bills to be paid in connection with this meeting by the present Secretary and Treasurer. Another motion was entertained by Dr. Wardell to thank the Grand Rapids doctors for the elaborate program which they had prepared. Following were reports from various members relative to the continuation of the Society, which were heartily endorsed by all present. Sentiment seemed to be in favor of continuing the Society, even though we possibly would only exchange sessions between Cadillac, Manistee and Traverse City.

Dr. Coates, member of the Manistee Society, spoke for that Society, assuring us that we would receive an invitation to a Clinic to be held at Manistee during the month of May. During the evening the Secretary's report was received, which showed the Society was in a prosperous condition from the financial standpoint and the retiring Secretary assured the members present that he greatly appreciated their efforts in helping to make the Society a success.

S. C. MOORE.

SHIAWASSEE COUNTY

The April meeting of Shiawassee County Society was held in Owosso at the Memorial Hospital on the evening of April 11. A good attendance was present, and in the absence of the speaker of the evening, Dr. L. F. Rice of Owosso conducted a quiz on the heart which served to refresh the memory on the anatomy and physiology of this important organ. Naturally some of us "flunked,"

but the meeting was an important one and quite a departure from the usual.

W. E. WARD,
Secretary-Treasurer.

MACOMB COUNTY

At a monthly meeting of the Macomb County Medical Society held at Mount Clemens on March 15, fourteen members were present. We had as guest Dr. F. B. Walker of Detroit, councillor for this district, who addressed the members relative to medical affairs.

VICTOR HUGO WOLFSON, M. D.,
Secretary.

Correspondence

The Editor of The Journal of the Michigan State Medical Society:

Due to the fact that certain newspapers in Detroit published statements that the Board of Registration in Medicine had conferred upon Dr. Adolf Lorenz, the Austrian surgeon who recently was a guest of the City of Detroit, an honorary certificate of medical registration, or license, I will ask you to publish the following correction appearing in the Detroit Free Press, Sunday, March 26:

"LORENZ PERMIT LEGALLY GIVEN

"Surgeon Qualified for State License, Officer of Board Explains.

"The Michigan State Board of Medical Examiners did not violate any law of the state or any rule of the board in giving Dr. Adolf Lorenz, famous Vienna surgeon, a certificate authorizing him to practice surgery in Michigan, Dr. B. D. Harison, secretary of the state board, said Saturday.

"Examined in Chicago

"Dr. Harison called The Detroit Free Press to explain that the certificate, or license, to Dr. Lorenz was given upon the reciprocal indorsement of the Illinois medical board, which issued a license to Dr. Lorenz in 1903 after he had passed a prescribed medical examination in Chicago.

"Dr. Harison explained that issuance of the license to Dr. Lorenz really was nothing more than a courtesy to an internationally distinguished surgeon, because the Michigan medical act exempts reputable and legally registered medical men who are registered and licensed in other states or countries.

"Dr. Lorenz, Dr. Harison said, did not come under the provisions of the state medical act because he had previously been registered, not only in Illinois, but in Austria, and his practice in Detroit in consultation with the city's leading hospital heads and registered medical practitioners was and is absolutely legal.

"Operation Cuts Red Tape

"At the request of Mayor Couzens and with the approval of Governor Alex J. Groesbeck, the usual red tape was dispensed with in Dr. Lorenz's case, Dr. Harison concluded.

"Dr. Harison said he wanted to explain the issuance of the license to Dr. Lorenz because the state medical board has been criticised considerably by persons who were under an unwarranted im-

pression that he was not qualified to practice in Detroit."

B. D. HARISON,
Secretary.

Book Reviews

NEOPLASTIC DISEASES. A treatise on Tumors. By James Ewing, M. D., Sc. D., Professor of Pathology at Cornell University Medical College, New York City, Second edition, revised and enlarged. Octavo of 1054 pages with 514 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth 212.00 net.

It is the object of this work to present within reasonable space and in accessible form the main features of the origin, structure and natural history of tumors.

Up to a very recent time it has been the prevailing impression that tumors fall into a limited number of grand classes in which the forms occurring in the several organs are so nearly related as to be virtually identical. Hence the practical physician or surgeon has been content to regard all fibromas, sarcomas, or cancers as equivalent conditions without regard to the organ involved, and on this theory to treat the members of each class alike. Upon this theory also it was legitimate to conceive of a universal causative agent of malignant tumors and thus to subordinate many very obvious differences which clinical experience has established in the origin and behaviour of different related tumors.

I believe that this point of view has greatly retarded the progress of the knowledge of tumors, and it has been the writer's effort to combat such a conception, so far as present knowledge permits. He has endeavored to analyze the numerous etiologic factors which meet in such diverse fashions in the inception of tumors, to emphasize the general dependence of clinical course upon histologic structure, to trace the histogenesis to the last degree, impressing its essential importance when known, and to enumerate and contrast the more striking clinical features which are often highly characteristic of different tumors.

No one would think of confusing lobar pneumonia with pneumonic plague, although both are examples of acute exudative pneumonitis, but it is quite the rule to identify for statistical studies several equally different forms of mammary cancer. The former diseases are related only as forms of inflammation, the latter only as types of neoplasia. From this point of view it may safely be said that there are more distinct clinical and pathologic entities within the groups of neoplasms than exist outside of them.

While a great volume of information regarding the clinical phenomena of the main forms of tumors is available in special works on medicine, surgery, and the specialties, the task of unraveling their separate varieties, tracing their mode of origin and growth, and establishing the nature of the less common forms, falls to the lot of the pathologist. For the final classification of tumors must depend chiefly on histogenesis and structure. Present-day oncology is chiefly concerned with these topics and the space devoted to them can safely be reduced only when our knowledge is much further advanced.

In spite of several laborious years spent in the task the writer acknowledges disappointment with the results attained in many departments, but can only claim that the effort to preach tumor as

specific diseases is in the right direction. He first undertook to write a book on the general principles of oncology, but soon found that the significant facts about tumors are not of general application, but are best revealed in the study of special tumor groups or even of special cases.

In the compilation of the work the writer has endeavored to consult with due respect all the standard authorities, and as far as possible the original contributions in the literature. The rather extensive bibliographic lists seem necessary for the guidance of the reader who desires complete information and to whom the work is chiefly addressed. The recent rapid increase in original contributions from the United States has made it impossible to do full justice to American literature.

While confessing a deep interest in the theoretic problems which render oncology the most complex and fascinating field in pathology, the chief object and hope of the author have been that by rendering more accessible to English readers the knowledge of tumors he may contribute something toward the reduction of the mortality from cancer.

OPIATE ADDICTION—ITS HANDLING AND TREATMENT. Edward H. Williams, M. D. Cloth, 194 pages, price \$1.75. The MacMillan Co., New York.

This work sheds a new light on much that has been vague in the treatment of addicts, and constitutes a working basis for the more sensible handling of cases that fall under this heading. If you have such patients under treatment you will do well to secure this text.

PRACTICAL INFANT FEEDING. By Lewis Webb Hill, M. D., Junior Assistant Physician to the Children's Hospital, Boston; Assistant in Pediatrics, Harvard Medical School. Octavo of 483 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1922. Cloth \$5.00 net.

I have tried to write a book on infant feeding which will be practical without being superficial, scientific without being tiresome. Its paramount purpose is to attempt to help the practitioner not only to treat but to understand feeding cases as they occur in his daily practice. It is absolutely essential, and not too much to ask, for the general practitioner, or anyone else who is feeding babies, to have a considerable knowledge of the chemistry of metabolism in normal and abnormal babies before they can feed them intelligently, and before they can be said to have a satisfactory working knowledge of infant feeding. This is what too many practitioners lack. They must know the processes that are going on in the digestive tract, and must understand what the different food elements do under various conditions, but so many conflicting views are held by various investigators in this country and abroad that it would be of little value in a text-book to attempt to give a review of the literature which forms the corner-stone of scientific infant feeding without setting any definite interpretation upon it. To my mind a text-book of infant feeding should consist of a clear presentation of what is generally believed on the subject, seen and interpreted through the eyes of the author, and largely supplemented by his own practical experience. It should serve at the same time as a working

guide for the general man and as a reference book for the pediatricist.

I have tried in this book to effect a common-sense combination of science and practice, to apply scientific principles to practice as much as possible, to go into a good deal of detail concerning certain scientific investigations which are of practical importance, and to omit others which are not. It has not been my purpose to follow any one "school" of infant feeding, but rather to amalgamate the best points taught in this country and abroad into what I hope is a homogeneous whole.

It is desirable, of course, to make any subject as simple and as easily understandable as possible, and infant feeding need not be made complicated, but, on the other hand, any presentation which does not explain underlying processes and the basis of symptoms is not enough for the thinking practitioner of today. As I heard an eminent Philadelphia pediatricist say not long ago, there is at present a tendency to try to make infant feeding so easy for the physician that there is a chance of forgetting whether or not the methods used may be suitable for the baby.

The general standard of infant feeding in America has, however, improved greatly in the last ten years owing to the increased interest that general practitioners have taken in it, which is shown by the continually increasing numbers coming for instruction to the large post-graduate schools, such as the Harvard Graduate School of Medicine and the New York Post-Graduate School.

To such men as this I respectfully offer this book, and sincerely hope that they may find it of value and interest.

I wish especially to thank Dr. W. W. Howell for so kindly consenting to write the chapter on Premature Infants; Dr. R. W. Lovett and other members of the staff for permitting me to use several pictures and Roentgen-ray plates taken from their cases in the Children's Hospital; Mr. J. V. Footman for kindly making the prints and taking many pictures, and the publishers for their many courtesies.

LEWIS WEBB HILL,
483 Beacon Street, Boston, Mass., March, 1922.

THE HEALTHY CHILD FROM TWO TO SEVEN. Francis H. McCarthy, M. D. Price \$1.50. The MacMillan Co., New York.

A guide, as the title implies, including nutritional and physical care, child nature, mental training. A text of value to parents.

PSYCHOANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION. By A. A. Brill, Ph. B., M. D. Lecturer on Psychoanalysis and Abnormal Psychology, New York University. Third edition, thoroughly revised. Octavo of 468 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, \$5.00 net.

Since the appearance of the last edition of this work, psychoanalysis has made unprecedented progress both as a therapeutic agent and as an expounder and interpreter of subjects and phenomena which are not strictly medical. As a result of its successful application to a large number of psychoneuroses precipitated by the war, psychoanalysis has gained many new adherents among physicians who were hitherto unacquainted with it. In other scientific fields it has opened up new vistas in biology, psychology, belle lettres, sociology, and the allied sciences; this is shown by the numerous works, references, and discussions in

the literature on these subjects. As pleasing as this is, one cannot altogether ignore some of the discordant notes, and disregarding the foolish ranting hurled at psychoanalysis now and then by ignorant individuals, one is struck by some misunderstandings even among those who are seriously interested in the subject. As most of these difficulties arise from a lack of understanding of the psycho-sexual problems, a knowledge of which is predisposed in all students of psychoanalysis, new material was added with a view of clarifying some of the specific sexual phenomena, especially masturbation and homosexuality. The other new chapter on Paraphrenia, deals with a class of rather mild psychoses, which the average physician rarely recognizes, and upon which psychoanalysis throws considerable light. The rest of the material consists of new cases and illustrations referring to various problems treated in the book.

TUBERCULOSIS IN INFANCY AND CHILDHOOD.

J. Claxton Gittings, M. D., Frank C. Knowles, M. D., Astley P. Ashhurst, M. D. Cloth, price \$5.00. J. B. Lippincott Co., Philadelphia.

This work comprises the lectures delivered at the Children's Hospital, Philadelphia, under the auspices of the Philadelphia Pediatric Society.

It is a splendid presentation of the subject and is more thorough in its entire discussion than the average text on pediatrics. It should be of value to internist and pediatrician.

BOOK ON THE PHYSICIAN HIMSELF. From Graduation to Old Age. By D. W. Cathell, M. D. This is the vastly improved crowning edition, published by the author, Emerson Hotel, Baltimore, Maryland. Price \$3.00.

The Crowning Edition of a text that has been a guide to thousands of medical students and doctors for these many years. Its talented author now presents it in a new edition that is well termed the Crowning Edition or effort of the writer.

It is a text that should be placed in every senior medical student's hand with an injunction to read, study and re-read it during the succeeding years of his practice and life.

We would that more doctors observed the precepts and advice therein imparted. We would that doctors, when in doubt as to ethics or policy, would refer to this text and be guided thereby.

Get this book. If you have one, send for another and present it to some friend. We recommend it most heartily.

AN INTRODUCTION TO THE HISTORY OF MEDICINE.

With medical chronology, suggestions for study and Bibliographical data. Fielding H. Garrison, A. B., M. D., Surgeon General's Office. Third edition, revised and enlarged. W. B. Saunders Co., Philadelphia.

This text appeared in 1913, the second edition was issued in 1917 and now we have its third edition. In it we find account of the newer findings of investigators of ancient and medieval medicine, pediatrics, dentistry, hygiene, Oriental medicine as well as a number of other equally important historical facts.

It is a volume that has held and will continue to hold a place as the most reliable reference to medical history. It covers the Romance of Medicine. It is fascinating in the extreme. Doctors

should know more facts regarding the history of their profession. This text will supply them and most profitably. We are all indebted to the author for his splendid effort.

ADRENAL FEEDING IN CONDITIONS OF HYPERTHYROIDISM

1—Experimentally, the feeding by mouth to dogs of derivatives of the entire adrenal gland, especially the adrenal nucleoproteins and a slightly hydrolyzed aqueous extract known as the adrenal residue, causes the animal's thyroid to gain from 50 to 75 per cent or more in its iodine content within a few weeks.

2—Feeding with corresponding amounts of adrenal crystals is without appreciable effect upon the thyroid.

3—Feeding with adrenalin or the so-called active principle of the medullary portions of the adrenal gland, has no appreciable effect upon the iodine content of the dog's thyroid and in human hyperthyroidism does not relieve the symptoms and may often intensify them (Goetsch test).

4—In conditions of hyperthyroidism the thyroid gland contains less than the normal amount of iodine per gram of gland substance.

5—The failure thus indicated of the thyroid to retain its normal amount of iodine apparently is due to a defect in the metabolism of iodine by the thyroid epithelium, and this defect is the probable biochemical cause of the disturbance.

6—The defect in the thyroid epithelial metabolism is theoretically dependent upon some preceding defect in the chromaffin or automatic "check" system and primarily begins in a failure in functioning of the thyroid terminals of the sympathetic nerves. It seems probable that the adrenal product acts through or upon these nerve terminals and therefore the functional integrity of these terminals is essential for the success of adrenal feeding.

(Endocrinology, January, 1922, John Rogers).

CHRONIC INFECTIOUS ARTHRITIS

Four hundred and eleven patients, suffering from chronic arthritis, constitute the basis of the study and investigation reported by Frank Billings, George H. Coleman and William G. Hibbs, Chicago (Journal A. M. A., April 15, 1922). This clinical research was centered on a study of the strains of streptococci isolated from the etiologic primary and secondary foci and from the infected periarticular tissues and synovial sac and from the joint exudate. The green-producing strains of the streptococcus were predominant in pure and in mixed cultures. Evidence was obtained that chronic infectious arthritis is usually caused by strains of streptococci which are usually nonhemolytic and of low virulence, and occasionally by nonpyogenic strains of gonococci. The bacteria reach the joints through the blood stream, and lodge in the small vessels of the periarticular tissues, in the terminal vessels of the subserosa, and in the branches of the nutrient artery which end

in the epiphysis. The reaction of the infected tissues is consistent with the degree of virulence of the infectious invaders which may be compared to minute emboli. The marked secondary morbid changes which occur in chronic infectious osteoarthritis, characterized by the tendency to the formation of new bone, were held to be due to faulty metabolism. A considerable number of the patients showed diminished carbohydrate tolerance and an increase in the blood sugar. Some patients exhibited moderate blood nitrogen retention associated with slight albuminuria and cylinduria. Digestive disturbance was a common observation, especially in those patients who had suffered from the disease for several years. Coincident involvement of the cardiovascular apparatus was found in many of the patients advanced in years, with the associated degeneration of blood vessels and increase of blood pressure.

General chronic infectious myositis, with but slight involvement of the joints in the early stages of the disease, was a clinical entity in this group. The morbid tissue changes of the infected muscles was produced apparently in the same manner as the infection of the joints. Some of the patients complained of pain, and this was associated with tenderness of the nerve trunks and of muscle bundles to which the nerves were distributed. This was interpreted as infectious neuritis or perineuritis due to the same infectious micro-organisms. The deformity of joints in these patients was due to bony overgrowth, to involuntary overaction of flexor muscles to relieve intra-articular pressure, and also to contraction of muscles due to morbid tissue changes caused by infection of the muscles. The clinical study of the group justifies the opinion that the progressive character of the disease is explained by the persistence of the primary or secondary etiologic foci through the failure of their complete eradication. After the removal of the etiologic foci of infection, the failure to apply a rational available management and treatment to correct remediable tissue defects explains the failure of improvement or of recovery in some of these patients. The management and treatment of this group of patients was based on the principles that relate to the cause, the mode of infection and the character of the morbid anatomic changes. Primarily, this involved the location and eradication of the apparent etiologic focus of infection. The management adopted to overcome the systemic infection, to promote improvement of morbid tissues and to restore function of the joints included the general physical improvement of the patient by the selection of a properly balanced diet, the use of restorative and palliative drugs, attention to personal and general hygiene, a cheerful environment, and the employment of physical therapy, including hydrotherapy, thermotherapy, electrotherapy, occupational therapy, mechanotherapy, and regulated passive and active exercise. While an attempt was made to select a balanced diet, individual peculiarities were considered. Painful and sore joints were immobilized by means of splints of plaster casts applied for short periods of time. As soon as the absence of pain and soreness permitted, passive exercise was begun and increased cautiously day by day. It was found that the improvement of the general condition of the patient by proper diet, rest, environment and other

measures aided in the restoration of the tone of the general circulation. The circulation of the infected joints was improved also by the local application of the alternating hot-cold spray. Dry heat applied for a short period daily by means of hot air baking, by electric radiant light and by other simple means greatly improved the local blood circulation and at the same time palliated pain and soreness. Diathermy was not used. The proper application of massage, Swedish movements, calisthenics and other active exercises, such as walking, were found to be very helpful at the proper period in the treatment. Occupational therapy suitable for both bed and ambulatory patients was very useful in the restoration of the function of a special group of muscles and, in addition, was a valuable form of diversion. Auto-genous vaccines of killed streptococci, a polyvalent horse serum and nonspecific proteins injected intravenously were used with some of the patients. Of the 411 patients, 229 received autogenous vaccine, 18 received vaccine and serum, and 164 were treated without vaccines or serum. Eighty-nine of the patients vaccinated were improved, 39 of the patients vaccinated recovered; of 18 patients who received mixed vaccine and serum, six that received serum were improved, and four of the patients that received serum recovered; of 164 patients that did not receive either vaccine or serum, 47 unvaccinated were improved and 23 patients who were unvaccinated recovered. These statistics confirm and substantiate the opinion expressed by the authors on former occasions that specific remedies in the form of bacterial antigens are of little or no value in the treatment of chronic infectious arthritis. The value of the management and of physical therapy in the treatment of these patients was emphasized over and over again by the improvement of patients who returned to the hospital for further management and treatment the second and the third time because they did not improve at home. In practically every instance the failure to improve at home was found to be due to the failure to carry out faithfully the management described because of indifference on the part of the patient and members of the family and, in some instances, because of the lack of interest on the part of the family physician.

PRESSURE ULNAR PALSY

In a case of osteoarthritis of the upper lumbar spine a plaster-of-Paris body jacket (not including the shoulders) was applied. This was removed after six weeks, and another was applied. After having worn the second cast with no untoward effects for three weeks, the patient's right hand became weak and numb. She had no feeling in the thumb and fourth and fifth fingers. She was in the habit of sleeping with the arms over the head, and awakened one morning with the edge of the cast pressing against her right arm, i. e., she was lying on that arm. When she was seen the next morning, a typical ulnar pressure palsy was discovered. The cast was trimmed under the right axilla, and the patient referred for massage, active and passive movements, and reeducation. Two months from the date of onset of the trouble, she was completely recovered. Philip Lewin, Chicago (Journal A. M. A., April 15, 1922), states that he has not been able to find a similar case recorded in the literature.

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Original Articles

HYGIENE, PUBLIC HEALTH AND PHYSICAL EDUCATION AT THE UNIVERSITY OF MICHIGAN

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ANN ARBOR, MICH.

The University of Michigan has recently initiated what may be regarded as a distinctly new development along the lines of health conservation and teaching at the University of Michigan, and one which gives promise of far reaching results. It has established a Division of Hygiene and Public Health and has correlated with it all work directly concerned with the physical welfare of the students.

The University's action in this matter is based on the present and future trend in public health activities, which in turn has been largely influenced by experiences in the recent war.

Prior to the World War our chief public health activities were confined to the control of environment. The sanitarian was the most active person in the health department. We legislated against and made provisions for the control of the environment. Restrictions were made as to the location of pig sties, corrals, etc. Health laws and regulations were in general concerned with street cleaning, garbage disposal and the abatement of nuisances. The public roller towel and drinking cup fell within the ban of the health department. The general assumption was that germs of disease lurked in dark rooms and filthy alleys, ready to jump out and attack the unsuspecting passerby. Further, it was commonly held that diseases traveled a long distance through the air. The word "malaria" means bad air.

Of course, many of our activities relative to the control of environment were and will continue to be of inestimable value; for example, effective war on disease carrying insects and animals, the control of water and milk supplies, and the doing away with the public use

of common articles such as the drinking cup, towel, etc., which come into close contact with the individual. However, on the whole, a very large majority of our former expensive public health activities had not so much to do with public health as with the orderliness, decency and self-respect of the community. Kelley has recently summarized public health activities into three eras:*

"In the development of the modern public health movement it will greatly aid our comprehension if we conceive it to have developed in three fairly definite eras or periods always bearing in mind that by the use of these terms we simply indicate the shift of emphasis, not that all the problems of the earliest era in point of time were solved before the others began to grow in significance.

"I will call these three periods—

"(1) The Era of Sanitation. Roughly, from 1850 to 1880.

"This era was principally concerned with environment. Its key word was 'environment.' Its typical exponent in the public health ranks was the sanitary engineer.

"(2) The Era of Infectious Disease Work. It began roughly about 1870 and was in full sway largely overshadowing all other public health concepts for about thirty years.

"This era was principally concerned with bacteriology. Its key word was 'the germ.' Its typical exponent was the laboratory research worker.

"(3) The third era is just beginning. It may be called the Era of Hygiene. It marks a return to first principles.

"This era is principally concerned with the human machine, the person. Its key word is 'education.' Its typical exponent is perhaps the public health nurse."

FUTURE PUBLIC HEALTH ACTIVITIES

We are beginning to appreciate more and more that it is the *person*, more than *things*, who is to be feared in disease transmission. In other words, close social intercourse is the greatest factor in disease dissemination. Human contact is the greatest highway of epidemics. Carriers of germs, mild cases and the "up and about" convalescents are of infinitely greater danger to the public than the dark room, the neglected alley, the pigsty, the slaughter house, the garbage can, and a host of other things against which we have legislated.

*The Modern Public Health Movement. The Common Health, Nov.-Dec. 1921.

It is the person then that we must deal with more and more in the future, and 95 per cent of our future public health activities will be concerned directly with people.

PROMOTION OF HEALTH AND THE PREVENTION OF DISEASE

In dealing with the individual, two more or less separate, yet closely related, interests and activities must be kept in mind by all those concerned with community health. The one is the *promotion of health*—the development of a sound, healthy, active body and keeping it at its best. The other is the *prevention of disease*. While a strong, well-developed body is a great factor in keeping well and in being 100 per cent efficient our war experiences and especially our experiences with the influenza epidemics emphasized the fact that the prevention of communicable diseases does not depend essentially upon a sound physique. Our greatest mortality from influenza and its sequel, pneumonia, was among our strongest young men from the rural districts. No matter how sound the body may be, ingestion of sufficient virulent tubercle or typhoid germs will cause these diseases.

The promotion of health is more or less a personal matter. It is concerned with the building up of sound, harmoniously developed, active and efficient bodies. One-third of our young men in America failed to pass the physical examinations for military fitness because through ignorance and neglect they had failed to promote their health. It is therefore the right and duty of society and the state to see to it that health promotion is given proper attention on the part of every individual at all ages. The promotion of health will include an understanding and putting into practice of the fundamentals of right living such as the body's relation to food, air, activity, rest, poisons, etc., and the prevention of defects.

The prevention of communicable diseases is a community affair. Of what avail is it to promote one's own health if one's bed fellow has tuberculosis, or if there is a careless carrier of disease in one's midst? In other words, in order to keep strong and healthy and free from diseases, one must concern one's self not only with one's own health, but also with the health of the other individuals in the community, for man himself is the source of most communicable diseases. The germs leave his body through various body discharges and are spread to others through social contact.

THE UNIVERSITY AND PUBLIC HEALTH

Public health, therefore, must concern itself with many phases of human welfare. It is not only interested in saving lives, but it must contribute to every interest and activity which have for their objects the physical betterment

of mankind. Perhaps the terms "human" or "public welfare" are more appropriate than "public health." Eugenics, better maternity hygiene, furtherance of infant welfare, development of school hygiene including, physical education, development and intelligent appreciation of mental hygiene, nutrition and growth, living conditions, working conditions—industrial hygiene, recreation, in fact everything which contributes to the welfare and happiness of mankind, are of interest to public health agencies.

One may well define as the future scope of public health or public welfare all those interests and activities which have for their objects the saving of human lives from death, illness and incapacity by means of health promotion and disease prevention and the elimination of the various hazards of life; the building up through nature and nurture of sound, vigorous, active, harmoniously developed bodies whereby the individual may carry on his economic and social responsibilities with comfort and happiness to himself and with entire satisfaction to the society in which he lives. Further, the public health program will include a continuous effort directed towards conserving and improving the minds of people so that they will make proper social adjustments and so that they will think better, feel better and act better than they do now.

Future Public Health work demands the education of the public in the need for and methods of health promotion and disease prevention. It is futile indeed to pass laws and regulations until the majority is convinced that obeying such regulations is essential for its well being. "Only by the education of the masses in character, intelligence and skill can a society be developed that will heal itself and build a real civilization."

The colleges and universities must accept their share of the responsibility and do their part in matters pertaining to public health. In fact, they must be the genuine leaders in fostering human welfare. As the university is at the head of the public school system of the state and from it radiates the substance and methods of education in general, so should it be, in a large measure and in close co-operation with the state board of health and other state wide health agencies, at the head of the health of the state. Through investigation and research, through properly conducted work in physical education, through required hygiene instruction of the right sort, through the health service, the medical school, school of dentistry, etc., in fact, through all its various curricula concerned, the University of Michigan will educate a large group of citizens and train public welfare directors and workers, thus assuring for the future that

health and vigor which is fundamental to the peace, happiness and contentment of mankind.

STUDENTS' PHYSICAL WELFARE

An important phase of this new development at the University of Michigan along the lines of health conservation is the reorganization and correlation of all activities which have for their object the physical welfare of the student. Hereafter this will be known as the Department of Students' Physical Welfare and it will include the students' health service, men's and women's physical education and all intramural sports and games. The present heads of these departments will continue in their positions but the new organization will correlate all this work. Positive health will be the slogan of this department. Its aim will be to help each student entering the University to develop and maintain an active, healthy and efficient body not only during the years spent at the University, but in later life as well. The department of Students' Physical Welfare hopes to interest every student in the University in doing some form of regular daily exercise and will make provisions for such exercise. Not only are we concerned in physical education and exercise as a health measure, but also for its educational and social qualities. There is too much truth in the characteristic caricature of the average student—stoop shouldered, hollow chested, horn bespectacled. His motions are as a rule sloven, the very antithesis of alertness, assertiveness and determination. He has lost all inspiration in the Greek ideal of physical beauty.

The Department of Students' Physical Welfare will do all in its power to correct this condition. For indubitably, the college student should be the culmination of all those physical characteristics which stand for harmonious and healthy development, correct and assertive poise, dexterous and efficient motion, and a cultural desire to be active.

All are familiar with the splendid results of military training in this respect. "He walks like a soldier" is decidedly a complimentary comment. Why not develop a University type of physique? Let the culmination of physical praise be, "He has the bearings of a University of Michigan student."

Through the Health Service, students who become ill are cared for. The interests and activities of the Department of Physical Welfare may be briefly summarized as follows:

1. The promotion of positive health and physical bearing through its physical education and intramural sports.

2. Protection of sound students from communicable diseases generally brought to the University. This will be done through the

Health Service by means of physical examinations, etc.

3. Detection, isolation and provisions for the treatment and care of the students who are victims of communicable diseases.

4. Advice to, care and treatment of all ill students.

5. Reclamation. Early detection and correction, so far as is possible, of beginning bodily disorders such as the degenerative diseases.

6. Reconstruction. Correction, so far as it is possible, of defects in all subnormal students by advice regarding proper exercise and right living and by treatment when advisable.

7. The students' environment must be made as sanitary as possible; rooming and boarding house regulations must be enforced and frequent inspections made. Campus buildings must be kept as sanitary as possible. The sanitarian must be especially concerned with the drinking water, swimming pools, the milk and food supplies, and the health conditions of those concerned with the preparation of food.

Thus the promotion of health and the prevention of disease among students will be fostered.

DIVISION OF HYGIENE AND PUBLIC HEALTH

The creation of a university Division of Hygiene and Public Health is another phase of the University's program for health conservation. This department will arrange courses to meet the needs of the various schools in the University.

1. In the first place, it is hoped that as time goes on a scientific course in health promotion and disease prevention, freed from the faddisms and non-essentials that permeate hygiene teaching today, and emphasizing the real fundamentals of personal and public hygiene will be required of every college student. Every student should be made to feel that he owes it to himself, to society and to his country to familiarize himself with and to put into practice the fundamentals of health promotion and disease prevention. It is these college students that later on will become the leaders in their communities. Therefore, through them the public will be reached.

2. The various professional schools such as medicine, dentistry, education and engineering will require of their students courses in hygiene and public health. It will be the aim of the department to furnish these courses so that these students will have a keen appreciation of what is worth while in public health. At present, the School of Medicine requires of its sophomores and juniors, courses in hygiene and

public health. In these courses the relation of the physician to public health is emphasized.

3. The training of public health directors will be an important feature of the division. Already the Graduate School, in association with the Schools of Medicine and Engineering and the Division of Hygiene and Public health, offer a curricula leading to a Master Degree in Public Health and to a Doctor's Degree in Public Health. There will be a growing demand for men and women with this training.

4. Further, the demands for workers in the various fields of public health work such as infant welfare, school hygiene, medico-social work, vital statistics, sanitation, laboratories and educational work will be second only to the demand for teachers. I know of no profession that should appeal more to college women. With a view of training health workers, it is proposed to offer a four years' curriculum leading to the Bachelor of Science degree in Public Health. The course will be such that the candidate may obtain a liberal education while in college and at the same time adequately train himself for public health work.

5. Finally, short courses in hygiene and public health to be given, perhaps during the summer session, will be arranged to meet the needs of health officers and give them opportunities for special training and advancement.

TRAINING OF PHYSICAL EDUCATION OR PHYSICAL WELFARE DIRECTORS

An important feature of this newly organized division will be the training of teachers and supervisors of school health and physical education or physical welfare for colleges, high schools and grade schools. This will be done in connection with the new School of Education. There is now a great demand for the new type of physical education or physical welfare teacher and supervisor, and the demand will grow. Laws compelling public schools to make provisions for physical education and health instruction and supervision have been passed in nineteen states. Similar bills are pending in other state legislatures. Physical welfare teachers and directors, in the future, must not only be trained in the theories and practices of exercise—gymnasium and out-of-door sports—but they must have additional training and along other lines of health promotion and disease prevention. A scientific curriculum covering four university years is being arranged in the School of Education with a view of training teachers and supervisors in this important work.

COMBINATION OF HEALTH TEACHING AND STUDENTS' PHYSICAL WELFARE WORK

An unusual opportunity for investigation and teaching of public health is given the Univer-

sity of Michigan by placing the Division of Hygiene and Public Health and the Department of Students' Physical Welfare under one supervision. The latter offers excellent opportunities for the study and solution of community welfare problems. For example, physical education and intramural recreational activities in the University must aid in the solution of the community's recreational facilities and activities. The Students' Health Service is the forerunner of the community's health center. From the future community health center will radiate all those activities concerned with the health of the community. There are still many problems to be solved relative to community health, and the students' health service must aid in this solution. Practically every phase of future public health work (personal, environmental and educational) and of public welfare may be studied and investigated in the University's Department of Students' Physical Welfare.

The University of Michigan is, therefore, not only striving to give its students the best living conditions possible and helping them to develop sound and vigorous bodies, but through its activities along these lines it desires to be of incalculable benefit to the state in helping people to solve all the various problems which have for their object the betterment of mankind.

THE COMPLICATIONS OF DIABETES MELLITUS*

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The importance of the complications of diabetes mellitus is not, generally speaking, fully appreciated. Much of the incapacity that is associated with the disease, especially in the mild and elderly patients, is due to sequellae or accidental complicating illnesses of the diabetic state. Loss of gangrenous limbs, blindness from cataract or other cause, disease of the cardio-vascular system and other similar degenerative changes are responsible for almost as much suffering and economic loss as are the symptoms of the diabetes itself. Further, many of these are fatal, either in themselves or because of their effect on the diabetic condition. Less than half of all diabetics die in coma, and acidosis as a cause of death is almost entirely limited to the younger patients. The rest, excepting a small fraction of one per cent who die of inanition, succumb to complications. Something like 15 per cent of Joslin's large series died of disease of the

*From Department of Internal Medicine, Medical School, University of Michigan. Read at Calhoun County Medical Society, Battle Creek, April 4, 1922.

renal and circulatory organs. Pulmonary tuberculosis accounts for the deaths of so many diabetics that in the older writings the symptoms of tuberculosis are described as characteristic symptoms of diabetes. Not only are these complications usually incapacitating and frequently fatal, but they are nearly always extremely distressing to the patient. Pruritis vulvae, for example, while rarely serious, causes the patient intense suffering that may not be controlled while the diabetic state persists by anything but morphine.

Further importance must be ascribed to the complications because of their etiological relationship to the diabetes. The persistence of a chronic cholecystitis that has already damaged the pancreas by extension of the inflammatory process must almost inevitably lead to further destruction of the cells of the Islands of Langerhans and progressive loss of carbohydrate tolerance. The importance of infections in the causation of certain cases of diabetes has long been recognized, and it is also a matter of common knowledge that an intercurrent acute infection will greatly aggravate the diabetic state and even precipitate an attack of coma. In spite of the importance of such infections, physicians too frequently neglect or do not recognize them, and are at a loss to understand why certain patients are so refractory to dietetic treatment. Obesity, arteriosclerosis and syphilis are other complications that may be expected to increase the severity of the diabetes.

Not infrequently the disease manifests itself chiefly by its complications. It is not unusual for the diabetic symptoms to be absent or so insignificant as to have been overlooked by the patient, and he comes to the physician complaining, not of thirst, polyuria or loss of weight, but of neuritis, recurrent boils, pruritis, or cataracts. Unless his medical adviser is alert he may fail to recognize the primary disease and waste his energy in vainly treating the complications, reaching the proper diagnosis only after weeks or months; or, what is more embarrassing, have the diagnosis made by a colleague. Such an error, with the resulting postponement of dietetic treatment, may result in irreparable damage to the patient; whereas early recognition of the disease greatly increases his expectancy of life and comfort. Emphasis, then, must be placed on the importance of complications in diagnosis.

Since it is estimated that there are 500,000 diabetics in this country—that is, one in every 200 of population—it is apparent that one may expect to find among them examples of nearly any medical or surgical disease. It is true that malignant disease, pernicious anemia, fractured bones and other diseases that seem to bear no

relation to the diabetes are seen at times. There are certain of these complications, however, that are especially worthy of consideration, either because of their frequency, or because of their effect on the diabetes or because of the importance of controlling the accompanying diabetes in their management.

These more important complications do not lend themselves to classification. They do not vary with the severity or duration of the diabetes nor with the age of the diabetic patient. We are not always able to determine that they are entirely accidental. Some of them seem to be due to disturbances in the nutrition of the tissue and hence to be of endogenous origin; others may be considered due to external agents as infections and trauma; yet it is often impossible to tell which factor is the more important. Even classification according to the systems or organs involved is not entirely satisfactory. The grouping of complications that will be used in this communication is not to be considered logical but is used for convenience.

INFECTIONS

Infections are of peculiar interest in the diabetic for three reasons: First, because the lowered resistance of the patient make him more susceptible to paracitic growths and their damaging effect is greater than in the normal subject; and second, because the infections frequently cause an exacerbation of the diabetic symptoms if the latter have been under control, render the patient more resistant to treatment at its initiation and may precipitate coma; and third, such infections not uncommonly permanently lower the carbohydrate tolerance of the patient.

For these reasons the acute specific infections in diabetics should always be regarded with grave concern. In four or our last 165 cases influenza was apparently the immediate etiological factor. A 7-year-old boy who was under our care recovered from a severe attack of mumps with a tolerance almost exactly half of what it had been. That these infections have a permanent effect on the ability of the organism to utilize glucose cannot be doubted. The immediate effects are even more readily apparent. One of our patients recently suffered from an acute tonsillitis; there was an immediately glycosuria that lasted only one day and subsided with the inflammation. A patient who had been sugar free for a year returned to the hospital last week with a heavy glycosuria associated with the prevalent epidemic of upper respiratory tract infection. A child in the Department of Pediatrics went into fatal coma on the third day of a similar infection. The laboratory examination of the urine of these patients often gives us a warn-

ing that a diabetic may have some such unnoticed infection; the sudden appearance of glucose or of acetone bodies in a previously satisfactory urine should always, in the absence of changes in diet or other unusual events, make us suspect and search for the presence of some major or minor infectious process.

The following case illustrates the practical importance of even the slightest infection in the more severe grades of diabetes:

The patient, a woman of 28, was desugarized in four days on a diet containing 900 calories a day, and she remained sugar free for several months on a diet that allowed her 1400 calories daily. With the reappearance of glycosuria and of diabetic symptoms she returned to the hospital. This time the diet first used, containing 900 calories, did not bring her to the sugar free state in three weeks; the amount of glucose in her urine was unusually variable, ranging from none to 25 grams in the twenty-four hour specimen. In the meantime she had been carefully examined, and the roentgenologist had located an abscess at the apex of one of her teeth that had produced no local symptoms. Her urine became sugar-free on the third day after the extraction of the tooth and has remained sugar free during the two months intervening to date, although for the last four weeks of that she has been eating 1400 calories daily. It seems probable that if the infection in this patient had not been removed our efforts at desugarization would have continued without avail.

Not only do acute infections cause an exacerbation of the diabetic symptoms and a permanent increase in the patient's inability to burn glucose, but these infections are more frequent and more severe in the diabetic than in the normal. The well known difficulty of healing of surgical and other wounds in these patients is due largely to their susceptibility to infection and to their lessened resistance to the organism. One of our patients came to us with a severe purulent inflammation of his whole foot following a mouse bite. An infected hang nail may lead to death. We have had two diabetics die from sepsis, one from a suppurative otitis media and the other from an infected foot. In the latter the trauma was so insignificant as to have been forgotten by the patient. Four of the seventy-three patients that we reported in December, 1921, died during the influenza epidemic of pneumonia; one of these came in during an afternoon without signs of pulmonary pathology and had died before noon of the next day.

For these reasons the management of acute infections is of great importance in the treatment of diabetes mellitus. Prophylactic measures, of course, bring best results. Proper dietetic treatment of the diabetes increases immeasurably the patient's immunity. Personal hygiene, especially as regard exercise, fresh air, and the avoidance of fatigue, will also decrease his susceptibility to infection. He should sleep alone to avoid contagion, and in

times of epidemics he should be prohibited from contact with large groups of people in public conveyances and places of assembly. Known foci of infection such as teeth and tonsils should be radically removed. In case an infection occurs, measures for its relief should be prompt and thorough. The diabetes, if not under control, should, of course, be strictly treated.

While any of the chronic infections may complicate diabetes mellitus, the two most important are syphilis and tuberculosis. In one of our recent cases arthritis deformans not only complicated the diabetes but apparently had an important etiological relationship to it.

Warthin has recently insisted on the importance of syphilis in producing diabetes mellitus; while other authors do not agree that most cases are syphilitic, there still remains a small group in which other clinical evidence of lues may be found and in which cautious anti-luetic treatment is indicated. In a few of these cases there is marked improvement in the glucose-burning function. On the other hand, an occasional diabetic will have a positive Wassermann reaction with no other manifestations of syphilis in either the history or the physical examination. Mason has recently pointed out that these patients do very poorly under the administration of arsenic and may show a great loss of tolerance. Extreme caution must be used in the diagnosis of syphilis under such circumstances. Three of 165 diabetics treated in the University Hospital during the last four years had syphilis of the central nervous system. Of these, two have died from general paresis and the status of the other is unknown.

With the improvement in the treatment of diabetes during the past decade, there has been a decrease in the frequency of pulmonary tuberculosis as a complication. Thirty-two of seven hundred and forty-four deaths in Joslin's series were from tuberculosis, and we have had three deaths in our series from the same cause. The treatment of a patient with both tuberculosis and diabetes is a peculiarly difficult problem since we are accustomed to high caloric feeding in the one case and total dietary restriction in the other. It is well established, however, that it is much more important to maintain an aglycosuric state than to feed the patient a liberal diet. Janney, with the opportunity of seeing a large number of these cases, has pointed out that the tuberculosis rarely develops while the patient is sugar-free, and Joslin has had several cases in which tubercle bacilli have disappeared from the sputum during the period of dietetic control of the diabetes. We have in the hospital at present a young man of 19 with a severe diabetes and a widespread bilateral pulmonary tuberculosis, whom we have kept alive in com-

fort for a year. We doubt that he would have done better than that had he had the tuberculosis only. It should be pointed out, however, that this group of patients stand starvation and very severe undernutrition poorly, and that if that type of dietetic treatment is used, a large percentage may be expected to go into coma. The ultimate prognosis in these cases is, of course, poor and many of them will show a progressive loss of tolerance.

ALIMENTARY TRACT

Constipation is found in nearly all cases of diabetes except those due to gross destruction of the pancreas and deficiency of its external secretion. The best explanation of this constipation seems to be that with dehydration of the body tissue there is a corresponding dessication of the intestinal content and the habit of constipation is established. This is nearly always relieved by the modern diabetic diet with its large content of roughage in the form of green vegetables. Where it is especially obstinate, we have found mineral oil effective.

In a small group of patients, the diabetes is secondary to inflammation of the biliary tract, with extension into the pancreas. These patients are usually multiparous women, past mid life, and somewhat obese. Symptoms of biliary infection may either be those of cholecystitis or cholelithiasis and in some cases the diabetes, usually of insidious onset, may manifest itself before the biliary infection is recognized.

We have recently seen a woman of 65 in whom the diabetic symptoms developed gradually eight years before we saw her and who had her first attack of gall stone colic three years before. At operation she was found to have, besides cholecystitis and cholelithiasis, an induration of the pancreas. In these cases operation following a period carefully controlled dietetic treatment is clearly indicated, both to relieve the patient from the gall bladder symptoms and to prevent further degeneration of the pancreas.

The diabetic patient should be at all times under the care of a good dentist. Dental caries, loss of teeth and pyorrhea alveolaris are almost constant findings in improperly treated diabetes. The oral surgeon may recognize the underlying disease in those cases in which the dental pathology is unusually resistant to local treatment. With proper control of the diabetes most of this can be avoided and with many patients this gives us an excellent argument in persuading them to adhere to their diets. As has been pointed out, abscessed teeth should be promptly extracted.

GENITO-URINARY TRACT

From the standpoint of the patient, one of the most distressing complications is pruritis

valvae in the women and, less commonly, balanitis in the men. The irritation is due to the acid and fermenting urine and can only be cured by control of the diabetes. No local applications seem to give relief, but the patient is usually able to indicate the day he became sugar-free because of the complete cessation of the itching and burning. Hypnotics may be required during the period of desugarization. Impotence and ammenorrhea are common in untreated patients and in those who are severely undernourished and are apparently compensatory in preventing further losses of energy. No special treatment is indicated and as the diabetic condition is treated the sexual function usually becomes normal.

Albuminuria with a few casts is found in most untreated cases. This should not be regarded as of serious import in indicating disease of the kidney unless it persists after the patient is sugar-free or is associated with other disturbances such as hypertension and impaired renal function. It is true, however, that a not inconsiderable group of diabetics have an associated chronic nephritis with often a very much increased blood pressure. Fortunately the restriction of protein that is essential to the successful treatment of the diabetes is beneficial to the nephritis. It may, however, be necessary to limit the sodium chloride intake as well.

Until recently it has been believed that diabetes mellitus is always an indication for the interruption of pregnancy. We now realize that the increase in the strain on the metabolism due to the developing fetus is not as great as is the disturbance associated with abortion. Most women can be carried successfully to term with careful dietetic management. In this connection it should be emphasized that in only a few cases in which a reducing substance is present in the urine of the pregnant or postpartum woman is diabetes actually present. Most of these have an innocent lactosuria. The differentiation can be made by studies of the blood sugar and by fermentation, polaroscopic and phenylhydrazin tests of the urine.

CARDIOVASCULAR SYSTEM

Arteriosclerosis plays two roles in diabetes: In many cases it appears to be an important etiological factor, while in nearly all elderly, untreated diabetics the sclerosis of the arteries is rapidly progressive. Gangrene, myocarditis, apoplexy and angina pectoris are serious and not uncommonly fatal accomplishments. The treatment here is so unsatisfactory that prophylaxis by maintenance of a normal level of glycemia is of paramount importance. It is chiefly because of this group of complications that the physician must insist on careful and thorough treatment of those mild, elderly

diabetics, in whom the symptoms are so slight as to be less troublesome than dieting or whose glycosuria was discovered accidentally at a life insurance or other examination. Patients with hypertension should be instructed in the avoidance of situations which are likely to induce apoplexy, and attacks of angina pectoris must be relieved by the usual measures.

NERVOUS SYSTEM AND SPECIAL SENSE ORGANS

Beside the occasional association of diabetes mellitus with such organic disease of the brain as general paresis and encephalitis and such cases as come to the psychiatrist with severe manic, depressive, or illusional psychosis during the periods of hyperglycemia, we must realize that the mental attitude of the patient is always of importance. During such times as they are not sugar-free they will frequently present vague but apparent psychic abnormalities and they must always be treated with the understanding that they are sick mentally as well as physically. The suddenness of change of personality as these people become sugar-free is often striking. One is also inclined to wonder if all diabetics are not "pathological liars." It is true that many patients will, while spending their money for hospital bills and medical care, cheat in regard to their diets and deny cheating even though confronted with absolutely convincing evidence.

In this connection the effect of mental strain on glycosuria should be pointed out. When it is true that 50 per cent of a group of students will develop a glycosuria during a difficult examination, it is apparent that emotional upsets must render the control of urinary sugar difficult in individuals with disturbances of their carbohydrate metabolism. Recently one of our patients who had been sugar-free for several days had seven grams of urinary sugar following an altercation with the administrative authorities in regard to her hospital bill, although there had been no change in her diet. Another patient, whose occupation is particularly trying, is sugar-free during his vacations on only slightly restricted diet, although when at work on a more strictly limited food intake he has an almost constant glycosuria. In the treatment of diabetes the physician will be most successful who can most completely eliminate from the lives of his patients unusual emotional upsets and mental strains.

Neuritis of greater or less degree is almost always an accompaniment of long standing diabetes. Most patients have lost knee reflexes, and in some there may be, beside parathesias and anaesthesias, a considerable degree of weakness of the extremities. In the far advanced cases these symptoms may predominate the picture, and to these the name pseudotabes has been given. In not a few cases the neu-

ritis is painful, and the patient complains of shooting pains about the chest and abdomen or of "sciatica." We have seen the cranial nerves involved, with ptosis of the lid, strabismus or nerve deafness. In these cases the patients can be assured that as long as the diabetes remains under control the nerve degeneration will not progress, and that in most cases there will be a decided improvement. No special therapy is indicated.

The eyes are the seat of a group of complications that are especially important to the patient. The failure of vision that may result from lack of diabetic treatment is one of the reasons why all diabetics, no matter how mild, should be rigorously treated. In some patients there is a blurring of vision without pathology that can be recognized by the ophthalmologist. In these there is a prompt return to normal vision with the institution of successful dietetic treatment. Many others have a severe neuroretinitis with almost complete blindness. The debate between the ophthalmologists in regard to the existence of a specific diabetic retinitis is chiefly of academic interest. Clinically it is important to know that the changes may result in almost complete blindness and that there is usually great improvement or even cure with proper dieting. We have recently seen two patients—one a man of 40, whose diabetes was of ten years' duration, and the other a woman of 53, whose symptoms had appeared only a year before—both of whom complained chiefly of loss of vision. When they left the hospital both were able to read the test charts normally. Because of the frequency of cataracts in mild diabetes, the disturbed metabolic function is not infrequently diagnosed by the ophthalmologist before the patient has been seen by the internist. Although Joslin states that he has seen diminution of the haziness of the cornea in some of these patients, operation after preliminary dietetic treatment is usually the only measure that offers the patient relief.

LESIONS OF THE EXTREMITIES

The group of lesions of the hands and feet demand separate consideration. These include suppurative inflammation of the soft tissues, osteomyelitis and gangrene. While in nearly all cases the feet only are involved, it must not be forgotten that these lesions may occur in the hands. Infection of the soft parts usually follows trauma; a small cut or scratch or an ulcerated area from a tight shoe allows the admission of the organisms. The lowered resistance of the tissues permits of rapid multiplication of the parasite and after a few days most of the foot may be involved. The skin is reddened and warm to the touch, the foot is swollen and often fluctuant and there may

be one or more sinuses discharging pus. There is more or less systemic reaction with malaise, fever and leukocytosis, a moderate acidosis can usually be demonstrated and glycosuria obstinately resists dietetic treatment. Osteomyelitis usually develops secondarily to such an infectious process, although at times no history of the primary infection can be obtained. The usual evidence of osteomyelitis is present, but the diagnosis is best made by roentgenray examination of the foot. Gangrene, nearly always "dry," usually begins in the great toe and is no different from arteriosclerotic gangrene not associated with diabetes. Evidence of arteriosclerosis of the peripheral vessels is readily obtained. Especially important is absence of pulsation of the dorsal artery of the foot when compared with the same artery on the opposite foot. The belief that gangrene is always associated with peripheral neuritis has not been confirmed in our series.

These three conditions, suppuration in the soft parts, osteomyelitis and gangrene, are frequently confused in spite of the fact that proper therapy cannot be instituted without an accurate diagnosis. Infection of the soft parts demands free and courageous surgical drainage. Until this is accomplished, dietetic measures will more often than not fail to control the glycosuria. Palliative and procrastination frequently result in a fatal sepsis. Osteomyelitis, on the other hand, unless unusually severe, will usually permit of delay until the patient is prepared for operation by proper dietetic treatment. The small bones of the foot are usually involved and can be easily removed under local anaesthesia. In the treatment of gangrene no general rules can be laid down. The diabetes should be first brought under control, and since no haste is required, the patient's diet should be built up to its maximum safe level. In a very few cases of early gangrene the tissues regain their vitality and no operation is necessary. In others a line of demarcation develops and the leg may be saved with the loss of only one or two toes. In some cases conservative operations are followed by progression of the gangrene up the leg, with the necessity of repeated amputation. These patients will do much better if the first amputation is in the upper leg. In selection of cases for thigh amputation is a matter of clinical judgment and no rules can be laid down.

In none of these conditions can satisfactory healing of the diseased part be expected unless efficient dietetic treatment of the diabetes is instituted. We have in our ward at present a mild diabetic, 56 years old, who had three amputations of the right leg in eighteen months, and gangrene had appeared in the left great toe. In spite of the fact that he was in a hospital under the care of competent sur-

geons, no effort was made to control his glycosuria and it is not surprising that surgery was unsuccessful. On the other hand, if the impairment of circulation from the high grade arteriosclerosis resulting from lack of treatment is great, the patient cannot be promised freedom from recurrence of the gangrene. A patient whose gangrenous toe was amputated in the University Hospital in September of last year returned in February with gangrene of the great toe of the opposite foot. This patient had adhered rigidly to his diet and his urine had been free from sugar in his daily and our monthly tests. The gangrene developed as it might be expected to in any patient with a high degree of arteriosclerosis.

OBESITY

Joslin has given obesity a prominent place in the etiology of diabetes and has quoted statistics which apparently support this view. It is a matter of common clinical experience that as diabetic patients gain weight beyond a certain point their tolerance falls and that as the obese lose weight their tolerance rises. A 22-year-old diabetic was discharged from the hospital in August, 1921, sugar-free on a diet containing 2,400 calories daily. During the few weeks following she gained nearly twenty pounds, and glycosuria returned without any change in diet. Her food intake was somewhat decreased and her exercise increased until she lost the excess weight. She was then able to tolerate without glycosuria the original 2,400 calories a day and has remained sugar-free at her original weight, to which she has held by daily exercise.

For this reason as well as because of the inconvenience entailed by excessive obesity it is often desirable to reduce diabetic patients. This is readily done by reduction of the fat content of the diet and carefully controlled exercise, both of which measures result in increased combustion of body fat. Unpleasant subjective symptoms will be prevented if sufficient carbohydrate is given to assure the proper oxidation of fat, and weakness will not be disagreeable if nitrogen balance is maintained.

EDEMA

Edema is a disturbing symptom in a large number of patients, especially in the more severe cases. The pathological physiology is not well understood. In some cases there seems to be a disturbance of the sodium chloride metabolism, in others it seems to be due to inanition and in most no explanation is offered. It is pleasant to know that relatively few patients with edema develop coma. While in itself it is not dangerous except when due to nephritis or heart failure the patient is frequently anxious to be relieved of it. This can nearly always be readily accomplished by the

omission of salt from the food for a few days and its permanent restriction. Results are most striking in those patients who have been drinking large quantities of bouillon with its rich salt content in their efforts to allay the pangs of hunger. Diuretics will often hasten the loss of fluid.

ACIDOSIS

The most feared complication of diabetes mellitus and the one before which we are most impotent is coma. Coma is a manifestation of the severest grade of acidosis, and therapeutic measures should be directed toward the prevention and relief of the acidosis before the stage of coma is reached. Prophylaxis by proper dietetic control is nearly always effective. All diabetics undergoing changes in their diets should be carefully watched for clinical and laboratory evidence of increasing acidosis. We have been able to relieve this condition in all cases when it was short of coma by diet without the use of alkalis. Promotion of excretion of "acetone bodies" by the administration of large quantities of fluid given by mouth, stomach tube, rectum or hypodermoclysis is desirable. Recently several cases have been reported who recovered from coma following the use of massive doses of alkali.

SURGERY OF THE DIABETIC

With the improvement in the treatment of diabetes there has been a change in our attitude in the treatment of surgical complications. Until recently the diabetic has been regarded, and with reason, as a very poor surgical risk. They stood anaesthesia poorly, coma developed, the wounds failed to heal and infections were serious. At present, however, it is nearly as safe to operate a diabetic as a non-diabetic patient, provided the proper precautions are taken.

Occasionally acute and dangerous surgical complications require immediate operation to save the patient's life; in these cases operation must be undertaken in spite of the risk. In the great majority of cases, however, sufficient time may be allowed for the proper preparations of the subject. Not only should the patient be sugar-free, but he should have been on a maintenance diet long enough before the operation to insure the stabilization of his metabolism. Local or spinal anaesthesia should be used whenever possible. Gas may be used, but ether, and especially chloroform, should be avoided because of their tendency to produce acidosis and to cause pneumonia. Hypodermoclysis should be employed freely, and if it seems likely that it will be indicated, the infusion is best given on the operating table. Emotional strain beyond an unavoidable minimum should be avoided.

Following these principles we have been able

to advise a large group of diabetics to undergo operation. We have had the usual percentage of such minor operations as cataract extraction, tonsillectomy and extraction of teeth without accident. A few patients have undergone somewhat more serious operation such as uterine curettage, amputation of the fingers and toes, removal of the small bones from the feet and perineorrhaphy, again without accident. A number of our patients have had major operative procedures such as prostatectomy, repair of ventral hernia, mid thigh amputations, cholecystotomy, repair of spina bifida with meningocele and inguinal herniotomy. Of these there was one death on the third day after operation on a very mild diabetic. At autopsy the pathology found pneumonia of the influenza type. These cases emphasize the fact that the diabetic of today is entitled to any operation that will improve his general health or comfort.

SUMMARY

The more important complications of diabetes mellitus have been discussed. It is pointed out that some of the complications are important because of their effect on the diabetes, some because of the effect of the diabetes on the complications and some because they are distressing to the patient and may be fatal. The importance of prophylaxis of most of these complications by thorough dietetic treatment of even the mildest cases of diabetes is emphasized. Attention is called to the fact that success in the treatment of complications may be expected only if the diabetes is kept under control.

A CASE OF PORTAL CIRRHOSIS IN A CHILD, WITH OPERATION. (THALMA-MORRISON)*

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"Cirrhosis of the liver is exceedingly rare in early life, although quite a number of cases are now on record between the ages of seven and fourteen years" (Holt). Osler also states that cirrhosis of the liver is not rare in childhood, still, according to Holt, Howard has collected only 65 and Laur and Hororat but 53 cases. Though the disease is truly not a rarity, still it is but rarely that a case comes under the observation of any individual observer. In a fairly large ward service and a large out patient service but one definitely proven cirrhosis of the liver has come under my observation.

*From Department of Pediatrics, Children's Free Hospital, Detroit, Mich. Presented before Detroit Pediatric Society.

In Howard's cases, two-thirds occurred in males and the etiology was as follows:

"In one-half no cause could be discovered, 15 per cent of Howard's cases were traced to alcoholism, 11 per cent to syphilis and 11 per cent to tuberculosis." (Holt). If we analyze this observation we find that there has been collected for literature less than ten cases of cirrhosis of the liver due to alcohol.

The case reported herewith is one of the undoubted cases of alcoholic cirrhosis and in addition is a presentation of the only case of cirrhosis of the liver in childhood that has been treated by the Thalma-Morrison operation (though with a fatal outcome) as far as I am able to discover. In spite of the fact that the patient survived the operation but a day, due largely to the advanced stage of the disease, evidenced by exhaustion and cachexia when the case came to operation, I believe that had operative procedure been tried earlier (the child came into our hands only a short time prior to the operative interference) that the stage of extreme exhaustion could have been delayed for a long time, perhaps several years and life accordingly prolonged. Operative procedure is worth a trial.

Case: Patient, J. P., aged eleven, was admitted to the Children's Free Hospital, December 7, 1921, and died January 12, 1922. The chief complaint was distention of the abdomen (of two years' duration), vomiting, loss of weight and weakness. The family history is not remarkable, the mother and father and two other children living and well, there being no history of tuberculosis or malignancy.

Previous History—Birth was at full term and spontaneous, infancy being not remarkable; pertussis and measles were the only childhood diseases, although the statement appears that the patient always took cold easily during the winter months. He had always had a good appetite and never suffered from constipation or urinary disturbances. There is here presented nothing of importance bearing upon the present condition.

Present Illness—For a definite history we must go back three years, at which time the patient began to work during the summer months in the beet fields in Northern Michigan, when he developed the habit of taking drinks of an alcoholic beverage, which he described as Vodka, stating that it was very strong and hard to take at first, but he soon became accustomed to it and learned to take it and enjoy it, receiving a small glassful three times a day. As far as we could learn he never reached the stage of intoxication. His drinking periods extended over three months a year for three years. The father noticed two years ago that the boy's abdomen began to enlarge and as he aptly put it, "the belly got bigger and the boy littler." The size of the abdomen has increased steadily for the last two years. During this period the boy has had periodic attacks of vomiting, although at the present time this symptom is not at all marked and only upon one occasion does the history show that an hematemesis occurred; the matter vomited then was bright red blood. This has not recurred. Emaciation has been continuous and rather marked,

accompanied by an increasing cachexia. For the past week dyspnea is a prominent symptom (due to intra-abdominal pressure), the child lying prone with a good deal of difficulty. A slight cough has persisted. Has never had bloody stools.

Physical Examination—A markedly emaciated and cachectic child of very good mentality, showing evidence of rather marked exhaustion, the facies is the anxious type and one is at once struck by the respiratory effort. Upon inspection of the skin one is at once struck by the very extensive subcutaneous venous enlargement brought about by collateral circulation. The compensating effort is most striking, the engorged vessels extending from the neck to the pubis, a very beau-



tiful "Caput Medusa" being present. One is also struck by the absence of any icterus. (The caliber of the subcutaneous vessels are so great that when a specimen of blood for chemical and serological examinations were required it was possible to enter the chest veins with the greatest ease). Unfortunately the camera has failed to show this venous engorgement on the photograph.

Head—Examination of the head was otherwise not remarkable.

Chest—Lungs were not remarkable; no adventitious sounds were discoverable. The heart, on account of the great intra-abdominal pressure upward, has taken a somewhat transverse position, as shown by physical examination and reontgenograph, the apex being pushed into a mid-axillary position. No adventitious sounds are heard. The diaphragm is pushed upwards.

Abdomen—The shape and appearance of the abdomen is very splendidly shown in the photo-

graphs. No further description along these lines is needed. An examination of the abdomen reveals a great tenseness of the wall; all signs of ascites are present and self evident. The tenseness of the abdominal wall was so great that the examining hand was able to distinguish nothing beneath until the fluid was allowed to escape by paracentesis. The liver was found to extend about three fingers' breadth below the costal margin, the edge was irregular and a roughness of the surface was evident to the examining hand, and was exceedingly hard. We were surprised to find that the spleen was not palpable; we had expected to find a good deal of hyperphasia of this organ. Nothing otherwise remarkable was found in the abdomen.

Extremities—The limbs were wasted and no edema was present. This is true of all the rest of the body.

Notes—On December 12, 1921, 4,000 C. C. of fluid was withdrawn from the abdomen. It was



clear and straw colored. At this point the boy began to complain of symptoms of an impending syncope. Drainage was at once stopped, although it was evident that a good amount of fluid still remained in the abdomen.

On December 13, paracentesis was again tried and 1,600 c. c. of a bright red, bloody fluid was removed. (The exploring needle of the day before had undoubtedly passed through a large omental or peritoneal vein, keeping it plugged until the withdrawal of the needle). The interne, on account of the marked bloodiness of this fluid, stopped when 1,600 C. C. were removed, although a large quantity of fluid still remained behind.

Following this puncture there continued a steady drainage through the point of the entrance of the needle. A small catheter was introduced through this opening and continuous drainage continued in this manner, although it is interesting to note that fluid was formed so rapidly that the abdomen kept tense during all this procedure. January 1 the tube became plugged and was removed. At this time the patient was referred to the surgeon for operative procedure, hoping that it might bring some relief. The patient was becoming markedly emaciated, there was no pain, cachexia was marked and exhaustion quite evident.

On January 11 a Thalma-Morrison was done. Just prior to the operation (the night before) 4,500 C. C. of fluid was removed from the abdomen.

Laboratory Findings—

1—Abdominal fluid—Alb. ++. Cell count 150 per cc/m, mostly red cells.

2—Blood Fragility within normal limits.

3—Blood Count—Hemoglobin 35%—Reds 3,000,000.

Whites 10,200—Polys 66%—Large mons 4%. Small mons 30%—No new forms.

Second Blood Count—Hemoglobins 50% Reds 2,770,000—Whites 7,000.

Polys 77%—Eosinophiles 2%—Small mons 13%.

Many Platelets.

Blood Wassermann, Chlo. ++++.

Noguchi—Negative.

4—Intra Dermal tuberculin—1-100 Negative.

5—Father and Mother Blood Wassermann—Negative.

SUMMARY

All evidence, of course, pointed to a marked portal obstruction. We knew that we were dealing with a cirrhosis of a portal type, but the causative factor was the thing that we could not at first feel sure of. Syphilis immediately presented itself as the cause. The negative Wassermann reaction in both parents and the uncertain one in the boy was confusing. Anti-luetic treatment was tried with no result. It is a fact that luetic livers as a rule respond very quickly to treatment, so in the face of no results we felt justified in ruling out lues. We must next consider the question of infections of childhood as a causative factor, but here we have a boy who has escaped more of the infections than most children, and inasmuch as a similar history is obtainable in most any child of this age we find no solution along these lines. The question of tuberculosis we can throw out on the negative findings.

We are now left with the only tangible causative factor, namely, alcoholism. We have the history of the use of alcohol over a moderate period of time, but we have this to consider: that a child of Russian parentage is likely to be offered alcohol from infancy and to my mind it is reasonable to believe that this child has been an alcoholic for perhaps all the years of its short life.

We are, therefore, undoubtedly dealing with

a case of Portal Cirrhosis of the liver, due to alcohol.

Operation by Dr. Nathaniel Ginsburg, January 11th, 1922.

NOTES BY DR. GINSBURG*

Ether anaesthesia employed. A right pararectal incision 16 C. C. in length, below the costal margin, was employed. The pro-peritoneal veins were of enormous size and simulated the tortuous venous arrangement seen in varicosities of the lower extremity. The vessels coursed from the umbilicus to the liver, following the anatomical disposition of the round and falciform ligaments. The abdominal distension was extreme, and the incision of the peritoneum released several liters of fluid. The liver was still hypertrophic and hob-nailed, resistant, with injected capsule, quite characteristic of the gross appearance of the type observed in Portal Cirrhosis. The great omentum was very thin, almost totally devoid of fat, short and contained small vessels, not distended or engorged.

The inferior diaphragmatic and superior hepatic surfaces were scarified with dry gauze. The peritoneum adjacent to the incision, for a distance of several centimeters, was scraped with the scalpel, and the omentum sutured to this surface, prior to the closure of the wound. The wound was sutured in layers, with the omentum included in the rectus sheath sutures. The operation was rapidly performed, occupying less than fifteen minutes. The case was well advanced at the time of operation and offered a poor prospect of surgical recovery.

The efficacy of the Thalma-Drummond-Morrison operation was certainly illustrated in this case by the attempt to establish a relief for the Portal circulation blockade by the enormous distension of the para-umbilical vessels, both intra and extra peritoneal.

This operation has a definite place in the treatment of Portal Cirrhosis. To be of value, it must be performed early in the disease in order that sufficient time may elapse for organized adhesions to be established. That it is curative in a small percentage of cases is attested by the fact that patients are living and enjoying good health, who were considered hopeless at the time of the operation, even from the surgical point of view. One such case has been under the writer's (Ginsburg) observation since 1915, when a Thalma-Morrison operation was performed, with no expectation of relief, in a case deemed utterly hopeless at the time. Partial relief in many other cases is known to follow this procedure. Bearing in mind the remarkable regenerative power of the

liver, every effort should be made to operate these cases at an early date. Spontaneous medical recovery in non-luetic Portal Cirrhosis is rare, and when arrest of the disease has occurred it can be attributed to the numerous adhesions present as the result of the constant abdominal puncture performed to relieve the ascites present.

ACTINO THERAPY IN INFECTION*

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A perusal of the various methods of treatment of chronic ulcers and infected wounds shows such a variety that one is forced to the conclusion that no truly successful method has as yet been advanced. New methods are continually coming to the foreground, only to be relegated to oblivion and yet without experimentation and corolation of facts nothing can be accomplished.

The pathology of a chronic ulcer and an infected wound of long standing is very similar. The base is covered with exudate, the edges are elevated and covered with dead epithelium, the surrounding skin is thickened and there is a small cell infiltration surrounding the entire wound.

An important principle in the management of chronic ulcerating surfaces is the stimulation of granulation and of the epithelial forming powers of their borders. This is accomplished by the removal of inhibitory factors such as sepsis, defective circulation and inefficient general nutrition. For the production of these results numerous substances have been advocated. Scarlet red, a dye stuff introduced by V. Schmeiden in 1908, has been used extensively and fairly successfully. Nitrate of silver in strength of from one to one hundred per cent has been used. Thies recommends the sand bath, consisting of sterilized very fine sand, sterilized by boiling and then dried. The sand is poured over the suppurating surfaces and is changed according to the rate of absorption and the character of the discharge. The duration of the treatment varies with the condition, but is usually from twelve to fourteen hours daily. Jaubert advises the careful preliminary preparation of the ulcer by means of tincture of iodine, peroxide of hydrogen, moist compresses, etc., and then a daily exposure of the ulcer of from twenty to thirty minutes to the direct rays of the sun. Unusually rapid and satisfactory healing is said to take place due to the production of active hyperemia and to the inhibitive action of sunlight upon bacterial growth. Widmer insists that the new

*Dr. Ginsburg is indebted to Dr. G. C. Pemberthy for the privilege of operating upon this patient in the Children's Hospital of Detroit.

*Read before the Maimonides Society of Detroit on March 21, 1922.

epithelium formed under these circumstances is much superior to that produced by scarlet-red, the approach to normal being sometimes so complete that the cicatrix can scarcely be differentiated from the surrounding skin. Richter affirms that an ordinary arc light with a powerful reflector is just as efficient as the rays of the sun. Frank E. Stowell treats chronic ulcers and wounds with static electricity and strapping.

If we are to determine upon a rational method of treatment of ulcers and infected wounds we must endeavor to stimulate the normal defensive power of the blood, for in the blood are found the real defensive agents of the tissues in the shape of phagocytes and alexins, which destroy bacteria and neutralize their poisons. Upon this theory rests the justification of the modern treatment of suppurative condition by means of heat, passive hyperemia, etc., all of which, apparently, merely aid the natural functions of the body. There is no question in my mind but that of all agencies advanced in recent years to aid the body to restore an ulcerated or infected part to normal, the ultra violet ray stands pre-eminent in ease of application, lack of pain, freedom from danger and in results obtained. Sidney Russ of Middlesex Hospital, London, says: "If a powerful source of ultra violet radiation be directed upon an infected wound, the result of an adequate exposure will be that the pathogenic organism on the surface will be directly killed. Cultural plates made show that bacterial cultures of all types, including the spores of tetanus bacillus, upon radiation by ultra violet light between 2,960 and 2,100 angstrom units were all promptly killed." Ultra violet light acts as a decided irritant to the skin. Vitality, therefore, of numerous cells is decidedly damaged and in order to take care of this damage there is a dilation of the blood vessels as a means of removing the dead and damaged cells; in other words; resorption takes place. There is also a sedative action upon the cutaneous nerves, tending to reduce nerve irritation, thus rendering the most painful ulcer or wound practically painless in a comparatively short time.

I have used the ultra violet ray in the treatment of abscesses, bone tuberculosis, tubercular glands, bone and joint infections, chronic leg ulcers, infected incision wounds following operations, infected injury wounds, indolent ulcers such as X-Ray burns, chancroidal ulcers, etc.

In an infective process leading to the formation of an abscess, the early use of the quartz light under pressure will, usually, abort the infection and prevent abscess formation. If the process has gone on to the breaking down of tissues, then distance radiation will hasten

suppuration, relieve pain and quicken the process of repair.

TUBERCULAR ADENITIS

Enlarged glands of tubercular origin respond to pressure treatment with the quartz lamp combined with general radiation over the entire body with ultra violet light. The glands, which are at times united in a solid mass, become separated and gradually disappear. If there is a tendency to suppuration, the rays hasten this and the abscess may be opened earlier. Continued treatment speeds recovery of the suppurating tissues. The patient's resistance is raised, there is increased metabolism with disappearance of languor, increased appetite and a quickening of all body functions.

BONE AND JOINT INFECTIONS

W. C. Campbell, (Am. Jour. Ortho. Surg. XIV 191, 1916) applied heliotherapy in sixteen cases of bone and joint infections. Seven were tuberculous, four osteomyelitic, two pneumococcic arthritides, one periarthritides following direct infection of the knee joint, one arthritis deformans and one decubitus. He noticed rapid expulsion of sequestra and marked an early beneficial effect in severe septic conditions. There is rapid evolution of the tuberculous process resulting in bony ankylosis in every case. Close attention should be given to orthopedic measures for the prevention of deformity as in any previous treatment, by using removable apparatus and extension.

In all cases of this type, sunlight, fresh air and good food are essentials, but for the patient that cannot afford the seashore or mountains we can supply in our artificial sunlight a method of hastening repair in the infected areas and building up of the body as a whole.

SKIN TUBERCULOSIS—TUBERCULAR ULCERS

Respond more readily to compression treatment with the quartz lamp than with any other known method. In these cases it is also a good policy to use general radiation to the entire body at least once a week for the systemic effect to be obtained.

INDOLENT ULCERS—X-RAY ULCERS

Respond quickly to surface radiation with ultra violet light. The ulcer is cleansed the day before by using a moist boric acid or Dakin's solution dressing. The edges of the wound are denuded of epithelium by brushing with gauze and curetting with a dermal curet. The wound is then exposed to at first small, then larger amounts of rays. Sterilization of the lesion and stimulation of the granulations takes place, followed in a short time by regeneration of epithelium. Satisfactory results are obtained by using an amount of ultra violet ray that will cause inflammatory changes in the normal skin. MacKee states that "indolent ul-

cers caused by third degree radio-dermatitis may be made to heal by exposure to the sun, or better still, to ultra violet rays from the Kromayer or Alpine sun lamps." Needless to say, in chronic leg ulcers as well as in other types, all methods must be used to assist the treatment for the ultra violet rays are not a panacea, but a valuable adjunct.

INFECTED WOUNDS

Experiments made in the Great War show that sunlight was a wonderful aid in the sterilization and healing of infected wounds.

Leriche in the *Presse Medical*, May 24, 1917, writes that "recent infected wounds, with dead tissues excised and opened out flat, can be sterilized by sunlight in forty-eight hours. The first period of insolation lasts one-half hour, and the second two and one-half hours. After six days such a wound could be sutured. In deep wounds and fractures, sterility was obtained in four to six days. Where sunlight is subdued the wounds can safely be exposed for a long time. Where bright and hot small progressive doses are indicated, not exceeding fifteen minutes on the first few days.

Leo and Vaucher, *Paris Med.*, July 27, 1918, write that "at all seasons direct sunlight rays have a positive therapeutic value and act like a drain, the edematous tissues pouring out septic fluid, droplets of which become visible in ten to twenty minutes.

By far the greatest effect from the sun's rays are due to ultra violet light and more rapid results can be obtained by the use of artificial ultra violet light produced by the quartz lamp. Here the rays are always available, always constant and can be measured in quantity to give the desired result.

Infected abdominal incisure wounds clear in from one to two treatments, lessening the number of days of convalescence of the patient and relieving the surgeon of much worry.

In the prophylaxis of industrial wounds due to injury the ultra violet ray finds a valuable place. Radiation immediately following injury will, in many cases, prevent infection, relieve pain and save the patient prolonged agony.

CHANCROIDAL ULCERS

Are rapidly cured by radiation with ultra violet light, using the ray frequently enough to sterilize the ulcer. Spreading is prevented, healing is promptly instituted and complications are prevented. The associated glandular enlargement must also be treated by the compression method. Where it is too late to prevent suppuration, the process will be hastened and the duration of the subsequent abscess will be greatly lessened.

SUMMARY

1. Ultra violet light is an agent that should not be neglected in the treatment of infections.

2. It will stimulate the normal defensive power of the blood, sterilize tissues, produce active hyperemia, inhibit bacterial action and regenerate epithelium.

3. It is not a panacea, but must be used in conjunction with other surgical measures.

4. It will give quicker relief from pain and freedom from infection than any other agent.

5. It is fool proof and can be used on all parts of the body without danger.

CONVALESCENT HUMAN SERUM IN THE TREATMENT OF SEVERE CASES OF SCARLET FEVER, WITH A REVIEW OF LITERATURE.

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The results observed in cases of very severe scarlet fever treated with convalescent human serum have been exceedingly encouraging. To those of us who see many cases of this disease and have an opportunity to note its various clinical manifestations, the use of this form of treatment in cases with high fever, delirium, cyanosis rapid pulse, highly inflamed throats with varying amounts of exudate, perhaps profuse serous to purulent nasal discharge is much desired. In fact, we have reached that stage where we are confident that the use of the serum early is life saving and that its use even late has modified the toxicity of any given case. In order to make an analysis of our cases more comprehensive I wish to present them in the light of past experience and observation of others who have reported cases so treated.

The first reference as to its use that I have found was in 1896 by Weisbecker, Germany. He injected five cases with small amounts of serum with little success.

In 1897, Huber and Blumenthal reported several cases in Germany. They were followed with reports by VanLeyden and Rumpel in 1902 and Scholtz in 1903. All of these reached no certain conclusions, but they used small amounts of serum subcutaneously. Between 1903 and 1912, there were no cases reported. The fear of transmission of syphilis and other infections through its use is given by Weaver as the reason for its abolition. With the advent of the Wassermann test, its use was again seen.

In 1912, Reiss and Jungermann, Germany, reported treating 12 cases of severe scarlet fever by the intravenous administration of 40 to 100 c. c. of serum with marked benefit in 10 cases. The donors were in the third and

fourth weeks of convalescence. The serum was tested for syphilis and sterility.

Koch, in 1913, reports 22 additional cases from the same clinic, with one death. He emphasized especially that its early administration is imperative. In 1915 Koch in conjunction with Reiss and Hertz reported a still larger series with very good results.

The first series treated in this country was by Abraham Zingher of New York, working at the Willard Parker Hospital. He reports 23 cases, 15 treated with convalescent citrated whole blood and eight with fresh normal blood. Of the 15 receiving blood from convalescent patients, nine received pooled blood from two or more donors. From two and a half to eight ounces of blood was administered.

Eleven recovered, four died—one of septic broncho pneumonia, one of streptococcic sepsis nine days later, two were moribund when injected.

Of the 11 that recovered, five were of the toxic type, six had septic complications, eight cases were treated with fresh normal blood. None died.

Zingher recommended whole citrated blood given intramuscularly. He preferred the intramuscular administration to the intravenous, saying that the rapidity of absorption is almost as rapid as in the intravenous. He stated that serum deteriorates after standing one to two months in the ice box. The temperature in the above cases began to drop within six hours after the administration of serum and reached its lowest level from 24 to 30 hours later.

In cases in the fifth to eighth days of the disease with the rash gone—temperature 103-105, duskiness of skin, weak pulse, membranous angina, enlarged glands, possibly bilateral otorrhea, he recommends fresh whole blood obtained from parents.

Weaver of the Chicago-Durant Hospital gives the following information:

"Serum is drawn from the 20th to 28th day of convalescence. The donor must be free from tuberculosis and have a negative Wassermann. The serum is tested for sterility, mixed, stored in refrigerator until used. He injects between 25-90 c. c., average dose 60 c. c., intramuscularly. Occasionally a second dose is given. In this series he treated 19 cases.

"The fall of temperature began two to four hours after administration and reached its limit 12 to 24 hours later. In toxic cases the temperature dropped to normal and had little tendency to rise. In septic cases temperature also fell. It rose again, usually not as high. However, the toxicity diminished, delirium and cyanosis disappeared, pulse became slower. Those cases which received serum early were best benefited."

In a later report, October 29, 1921, in the *Journal of the A. M. A.*, he gives the following information:

"Including the 19 cases previously reported, he reports 54 cases, the most toxic of 1,200 admitted during that time. Thirty-eight were of the toxic type. In six, septic complications were most prominent. Ten were toxic with septic complications. Two died—one septic, one toxic. The former died four hours after entrance, the latter in the eighth day.

"The amount injected and method used was the same as described above. Intravenous administration was tried in several cases, with no particular advantage."

He presents charts showing the best drop in temperature curve in those cases that were given serum earliest. Fourth week serum was preferred by him. Seventh week serum was found to be still active. Mixed serum was best liked. Donors having mild attacks gave just as an efficient serum as those with severe attacks. Serums several months old were not as efficient as fresher serum.

Only one untoward result was seen, which was an abscess formation in thigh, due to secondary infection. The patient recovered.

M. J. Synnott, New York, reports one case desperately ill, successfully treated with citrated convalescent blood. Temperature fell by lysis. Hoyne reports its successful use in the contagious hospital of Cook County.

C. Kling and G. Widfelt, Stockholm, report the epidemic of scarlet fever that passed over the city of Stockholm in 1916-1917, when 2,165 cases were reported, showed a very large percentage of severe and fatal cases. Treatment of the severe cases by the serum method prepared from convalescents was undertaken and showed excellent results. Before the serum treatment was attempted, the fatal cases of the severe form were 50 per cent or more. Or 237 cases treated, 195 proved successful and the percentage of deaths declined to 19.5 per cent in December and 6.3 per cent for January, although the relative number of severe cases had increased. The serum prepared from the blood of convalescents was found to be of equal value as taken from light, medium or severe forms. The blood was usually taken from the fifth or sixth week after the first appearance of the disease, but was found effective when taken the fourth or seventh week. Healthy donors were selected. No secondary ill results were noted from the use of the serum in any case.

W. Schultz, Germany, reports serum therapy was employed in 184 cases, the injection being either normal human serum, convalescent serum or mixtures of both. Favorable results were secured, larger doses giving the more definite improvement in the condition. The serum should be given within the first three days of the disease. The mechanism of the reaction is not clear, but since horse serum gave less favorable results, it is evident that there is a more specific factor concerned.

F. Prinzing, Berlin, 1918, states that in pa-

tients who had not received serum therapy, the disease was followed by lymphadenitis in 34.6 per cent, by otitis media in 10.8 per cent and by glomerulo nephritis in 18.9 per cent. These conditions appeared in patients who had received serum in per cent of 15.5-9.3-8.2.

W. Grissbach, Berlin, 1919, reports that in a study of 21 cases, human serum was injected in 19 cases from convalescents, in two from normal individuals; 10 to 20 c. c. were given each patient. The treatment is very efficient in modifying the duration and severity of the disease. The reactions following injections of serum are dangerous.

In an extract in the *Journal A. M. A.*, July 16, 1921, P. Bode, Berlin, reports 30 cases treated. Defervescence with crisis was seen in nine in less than 24 hours, remissions in four, rapid lysis in six, remissions plus lysis in 11. Effect on temperature was pronounced in every case. No less striking is the effect upon the general condition and circulation. The complications are not warded off.

PERSONAL OBSERVATIONS

With these reports I wish to add that 39 cases were reported by Dr. Levy at the meeting of the Detroit Pediatric Society in the hospital. This was the number of cases treated at the Herman Fieber Hospital with convalescent serum for the year ending July 1, 1921. Thirty-two lived and seven died. Of the seven who died, two were practically moribund, one died within 21 hours and the other 18 hours after entrance; one after eight days of acute hemorrhagic nephritis, one after eight days of septic complications. Three died of toxemia. Two of these received but 10 c. c. of serum and one 20 c.c.

Of the 32 who lived, 20 were toxic cases and 12 had septic complications. The average dose was from 10 to 35 c. c. intramuscularly. The serum was administered from the third to the eighth day of the disease. Children responded as well as adults. Eighteen cases were treated so far the fiscal year, beginning July 1, 1921. These were the most severe of all cases of scarlet fever admitted since that date. Of these 18 five died. The deaths were as follows:

1. Male, 3 years old. Ill three days on entrance. Temperature 105.6. Cyanotic, very weak pulse, purpuric rash, membranous angina. Given 30 c. c. of fresh convalescent blood. Died of toxemia within 48 hours.

2. Female, 4 years old. Scarlet fever five days old. Had pertussis, broncho-pneumonia and pharyngeal diphtheria, concomitantly with scarlet fever. Given 25,000 units of anti-toxin and 20 c.c. of fresh serum. Died in two weeks of pneumonia and general sepsis. Temperature dropped after administration, toxemia lessened. Later temperature rose again.

3. Female, 30 years old. Ill five days. Temperature 104.6, cyanotic, rapid thready pulse, heart sounds barely audible, rash very intense, edema of throat. Given 20 c.c. of serum. Died within 24 hours of cardiac failure.

4. Male, 5 years old. Ill five days. Temperature 104, well marked rash, membranous angina, color poor, very rapid pulse, marked cervical adenitis. Given 40 c.c. of serum. Temperature dropped, toxemia lessened, later neck glands became still larger. Did not localize, meningismus developed and the patient later died of general sepsis.

5. Female, age 12. Ill six days. Almost moribund. Very cyanotic, weak, rapid pulse; disappearing rash, marked desquamation, ulcerative angina, markedly enlarged cervical and submaxillary glands. Given 40 c. c. of fresh serum. Died within 14 hours of entrance.

Of the five who died, therefore, one died of pneumonia and sepsis after two weeks. However, she showed characteristic temperature drop. One died in 24 hours from myocardial failure. One died of general sepsis following extensive adenitis. One was sick one week before entrance, came into hospital almost moribund and died within 14 hours. One died of toxemia, but had received only 30 c. c. of blood, which is equivalent to about 10 to 12 c. c. of serum. Even some of these cases showed improvement after the administration of serum, as evidenced in the cases who died of sepsis. In septic case No. 1, temperature dropped from 105 to 98 in 48 hours and there was general improvement noticed also. In septic case No. 2, temperature also dropped two degree with the administration of the serum.

Of the 13 recovered cases, four were of the pure toxic type, three ill three days and one seven days. Temperatures were 104.6, 105.8, 104 and 103.6, respectively. These dropped to normal within 24 to 48 hours and stayed down. From 30 to 50 c. c. of serum was given. In one case with septic complications, temperature dropped from 105.8 to 99.6 within 24 hours after administration of 20 c. c. On fourth day went up gradually until twelfth day, when it reached 103.4. A second dose of 18 c. c. took temperature down to 100 within 24 hours and later lower by lysis. One case with septic complications showed little drop and no immediate improvement. Temperature dropped by lysis, however, only 15 c. c. of serum was given in this case. In three cases temperature dropped from 3.5 to 4.5 degrees in 24 to 36 hours, then rose 2 or 3 degrees due to septic complications. In three cases temperature dropped 3.5 degrees in 24 hours, went up a lit-

tle, then down by lysis. These had septic complications.

In one case with septic complications, temperature dropped 2.8 degrees in 24 hours after the administration of 30 c. c. of serum, then went up 2.2 degrees in two days and dropped 3.2 degrees after the administration of 20,000 units of diphtheria antitoxin, later dropped to normal by lysis. This case had septic complications.

Of the 13 who recovered, the toxemia was reduced in 11 almost completely and in two to a small degree. All of the cases with the exception of two received antitoxin. Antitoxin was usually given from 24 to 72 hours before administration of serum, and showed little tendency to reduce temperature or toxicity, at least not to a degree which convalescent serum did. As to whether or not convalescent serum reduces the tendency to complications, I would answer from our cases that it had little inclinations to do so. No untoward results were seen in any of the cases.

The blood was taken from healthy donors, Wassermann negative in the fourth or fifth week of the disease. The serum was injected intramuscularly in all cases. The intravenous route was not attempted. The blood was obtained from the median cephalic vein of the donors by the syringe method or into a mouth suction bottle. Fresh whole blood, citrated whole blood, centrifuged citrated blood, serum from defibrinated blood, citrated blood run through a Berkefeld filter and decanted serum after standing were used. The effect from the serum obtained in any way was identical. There was no particular advantage as to the amount of serum obtained from any method used. The oldest serum used was three weeks.

Those who see many cases of this disease know that the temperature drop and reduction of toxemia after the administration of serum is no artifact. No severe case of scarlet fever shows such abrupt fall in temperature in the second, third and fourth days of the disease as showed in the cases treated. The process is too rapid and too consistent for any shadow of doubt.

The men who have used this treatment are very enthusiastic about the results obtained. A concentrated effort will be made by them to encourage its use, decrease the difficulties encountered in obtaining serum and provide donors. From this effort will arise many more cases so treated, so that next year's report will be much more formidable and convincing than this.

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TREATMENT OF DIPHTHERIA BY THE INTRAVENOUS INJECTIONS OF DIPHTHERIA ANTITOXIN.

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Intravenous medication is given so that the substance used is carried into the blood stream, and thence into the tissues in practically an unaltered form, thereby getting the quickest action from the medicament. Necessarily the introduction of a foreign substance into the human blood stream is a process that is undertaken under the strictest aseptic technic and with no small amount of danger to the patient.

In order to get results from any systemic medication it must be carried into the blood stream and by a process of osmosis distributed to the tissues through the walls of the capillary system.

The substances injected intravenously have the best chance of being carried to the tissues unchanged is easily seen. Substances given orally undergo digestion. Antitoxin given orally or rectally would be useless. Being contained in horse serum, the serum would be digested and broken down into amino-acids and the antitoxin destroyed. When given subcutaneously, absorption is slow. Intramuscularly is the second method of choice as far as rapidity of absorption is concerned.

Many substances are injected into the blood stream, most commonly into the veins, and in infants into the longitudinal sinus through the anterior fontanel. Any vein may be used, the one of choice is the median cephalic of the arm. When inert substances such as solutions of sodium chloride or sodium bicarbonate are introduced into the venous system there is little change noted in the subject. The added amount of fluid quickly passes out of the blood into the tissues. These solutions are excellent to make up for a deficiency of blood lost by hemorrhage, or as a means of diluting poisons of septic conditions. However, when a foreign protein is introduced directly into the blood stream various reactions and phenomena are manifested.

Most all proteins that a person eats are

broken down in the gastro-intestinal tract to the simple amino-acids before they are absorbed by the blood stream.] If one were to inject any end product of protein digestion into the blood, the results would not be harmful. Or if one should inject a protein that is not foreign to the blood, such as the blood of one species into the blood of another of the same species with the same type of blood, the results would not be injurious. But when for-

jections of antitoxin. Therefore, so far as could be determined the danger of a serious anaphylactic shock in these patients was slight.

There are a few cases in literature of sudden deaths from intravenous injections of antitoxin used as a curative measure for diphtheria. Of the sudden deaths most of them were in asthmatic individuals and in children of the status lymphaticus type. The only un-

ANALYSIS OF THE SIX CASES

Name	Mrs. F.	Mrs. T.	Mrs. S.	Mrs. B.	Antonia B., 3 Years	Frank B., 4 Years
Amount given.....	9 c. c.	9 c. c.	10.5 c. c.	8 c. c.	4 c. c.	4 c. c.
Units given.....	10,000	10,000	15,000	10,000	5,000	5,000
Time of injection.....	4:30 P. M.	4:50 P. M.	10:10 P. M.	9:55 P. M.		
Time of Chill.....	5:00 P. M.	5:15 P. M.	10:40 P. M.	10:55 P. M.	Half hr. aft. injection	20 min. aft. injection
Duration of Chill.....	20 Min.	30 Min.	40 Min.	10 Min.	10 Min.	20 Min.
Temperature before injection.....	100.6	100	102	100.6		
Temperature one hour after injection.....	103	102.6	106	101		
Pulse before injection.....	100	110	112	78		
Pulse one hour after injection.....	120	118	120	90		
Leukocytic count before injection.....	13,000	12,900	14,000	15,600		
Leukocytic count after injection.....	14,300	10,200	15,800	14,400		
Symptoms following injection.....	Nausea	Headache	Severe back-ache, vomited	Vomited		
Type of diphtheria and amount of membrane.....	Moderate on both tonsils	Moderate on both tonsils	Excessive membrane on both tonsils	Slight on both tonsils	Moderate both tonsils. Nasal Diph.	Excessive on both tons. Laryngeal
Results.....	Cured	Cured	Cured	Cured	Cured	Died of the toxemia of diph. several hrs. aft. adm.

eign proteins are injected the reaction manifested may be severe. Theoretically, the first injection of a foreign protein sensitizes the subject, providing a sufficient amount is given. This protein is called the sensitizer or anaphylactogen. Rosenau of Harvard has succeeded in sensitizing guinea pigs with one millionth of a cubic centimeter of horse serum. There is no danger in the sensitizing dose. Our diphtheritic patients may become sensitized to horse serum when we give them their initial dose of antitoxin.

Repeated injections of a foreign protein over a short period of time theoretically would cause an anaphylactic shock. Therefore, we take the precaution to see if the patient, who has had horse serum within ten days to a year; is sensitized. This is done by injecting one-half a cubic centimeter of antitoxin subcutaneously and waiting one-half hour to see if there is any skin reaction, shown by a reddening and edema around site of injection. All patients given intravenous injections of antitoxin were tested for sensitization in this manner, even though they gave no history of previous in-

toward result that did not immediately follow the intravenous injections was "serum sickness." However, many of our patients given antitoxin intramuscularly develop serum sickness so that this sickness does not have to be considered.

Freshly filtered antitoxin was used. (W. N. Berg, of the Bureau of Animal Industry, U. S. Department of Agriculture, has shown that filtering through a Berkefeld filter does not result in appreciable losses of antitoxic units). The antitoxin was filtered to assure horse serum free from precipitates and bacteria from possible contamination.

The serum was given with a 20 c. c. Luer syringe with a moderate bored needle, perhaps a No. 18. The skin was cleansed with iodine and excess washed off with alcohol. A rubber tourniquet was used. Patient was in dorsal position. Six cases were treated and studied. They were free from all other diseases but diphtheria.

From the chart we see that:
(a) All the subjects developed a chill with-

in ten minutes to thirty minutes after injection.

(b) In two cases the chill was violent. One patient said he chilled so badly he almost shook himself out of bed. (Case 2).

(c) All patients had a rise in temperature taken one hour after injection.

(d) One patient's temperature rose to 106 degrees. (Case 3).

(e) All the patients had an acceleration of the heart beat, pulse taken one hour after injection.

(f) One patient complained of severe pain in the lumbar region immediately after injection and collapsed. He was given camphor and oil and later morphine to relieve pain. This is the patient whose temperature rose to 106 degrees. (Case 3).

(g) One patient felt nauseated, but did not vomit. (Case 1).

(h) Two patients vomited. (Cases 3 and 4).

(i) One patient had a severe headache, (Case 2).

(j) The leukocytes were raised in two cases. (Cases 1 and 3).

(k) The leukocytes were lowered in two cases. (Cases 2 and 4).

(l) All patients felt well the morning following injections, except one, who died.

(m) The membrane did not disappear any faster than it does with intramuscular injections.

(n) One patient died several hours after injection. This patient was cyanotic when brought in and died of the toxemia of diphtheria.

CONCLUSION

Antitoxin should be given intravenously only in severe cases having excessive membrane and toxemia.

QUARTZ LIGHT THERAPY IN PELVIC INFLAMMATION.

L. C. DONNELLY, M. D.
DETROIT, MICH.

This article is written because the author believes that the medical profession is not aware of the value of this modality in diseases peculiar to women. I have now given about 9,000 treatments, and a large number of these treatments were given in gynecological cases. I have seen some truly marvelous results. A leucorrhoea which required two douches a day and the continual use of napkins was cured with one treatment; inflamed tubes and ovaries as large as goose eggs resolved and shrunk to normal with eight treatments; an inflammatory

post-abortion tumor as large as a grape fruit resolved with ten treatments. These were exceptional cases. I believe that every patient treated received benefit, which conversely means that quartz light pelvic therapy harmed no patient. Is there any other surgical pelvic procedure that does not occasionally harm?

Pelvic inflammation includes pelvic peritonitis and cellulitis, as it is difficult to make a differential diagnosis without operation.

The infective organisms generally invade the cervix, uterus, tubes, ovaries, peritoneum and pelvic cellular tissue in the order named. The gonococcus is most often the offending organism; mixed infections are not rare. Operative instrumentation often causes infection.

The peritoneum becomes hyperemic, lusterless and throws off an exudate which may contain considerable fibrin, which produces adhesions; it may be serous, forming collections in the peritoneal cavity, later becoming encapsulated, or it may be purulent.

Cellulitis, as a clinical entity, is not common. It is due to traumatism or sepsis. Trauma generally arises from conditions associated with pregnancy or operations. Exudation of various types, serous, fibrinous or purulent is present. Pus may burrow and drain into the bladder, vagina or rectum.

In pelvic inflammation, as in most diseases, the battle rages between the resistance of the patient and the virulence of the infecting organism. In either case, quartz light therapy is of proven value.

Treatment is to be discussed as pre-operative, operative and post-operative.

The cases of mild pelvic inflammation intelligently treated by quartz light therapy will be cured without operation. General treatments are given with Alpine sun and radiant lamps—local treatment with the Kromayer, using the various hollow quartz crystal applicators which best suit the individual case. The author uses seven specially constructed hollow quartz applicators, varying from three to seven inches in length and from one to two and one-fourth inches in diameter. This allows the admittance of the largest possible dose of ultra violet rays that the introitus will permit. The longer applicators allow one to swing the Kromayer lamp from side to side, forcing the applicator against the tubes and ovaries. A solid quartz rod seven inches long, one-fourth inch in diameter, may be entered through the cervical canal and be used directly in treating the interior of the uterus. This same rod, or shorter ones, are entered into the urethra and bladder for treatments.

Local Kromayer pelvic treatments often give relief while the patient is still in the office.

Tenderness, due to congestion and inflammation, is lessened. The patient expresses the

thought that the treatment directly reached the diseased part. Local treatments have a general tonic value in addition to the local value. The congested vaginal mucous membrane is stretched over the quartz applicator. A very rich blood supply is continually flowing through this membrane, and the red blood corpuscles are continually absorbing and carrying away the ultra violet rays so that the emanations are carried to all parts of the body, aiding in normalizing all cellular function. Relatively large doses of ultra violet rays can be given through the vagina without discomfort. The greater the inflammatory condition present, the greater the dose indicated, happily; and the more inflamed a part is, the more ultra violet rays the inflamed part will tolerate without undue reaction. To state it in another way, the more acutely ill a patient is, the larger the dose of ultra violet rays indicated, and the less severe the resultant ultra violet ray reaction.

In pelvic inflammatory conditions associated with evidences of systemic toxemia, general quartz light treatments are indicated. Among these conditions may be mentioned secondary anaemias, neurasthenic conditions, including the nervous symptoms alleged to be due to adhesions following previous abdominal operations. Improvement in general symptoms may be immediately noticed. Material benefit, however, is noted week by week, rather than day by day. With sick people, evolution is better than revolution. Slow, steady progress is better than rapid recovery with relapses. Quartz light therapy brings about the recovery by sterilizing germs, breaking down toxins, increasing elimination, normalizing white blood cell count, increasing the amount of red blood cells and haemoglobin, in fact, so aiding metabolism that a condition approaching normalcy is brought about.

Certain cases will need to be operated upon, although many now operated upon can be cured by this means of treatment without operation. The patient who has had the benefit of pre-operative quartz light therapy approaches the operating room practically assured that the abdominal wound will heal quickly and without infection, and that there is much less chance of peritonitis resulting because the intra-pelvic Kromayer treatments have greatly lessened the virulence of the invading organisms, and because the ultra violet ray hyperaemia has brought about a protecting coffer dam wall of blood cells, which are already working to overcome superinduced operative trauma or infection. It apparently is proven that immediately following a general quartz light radiation, the number of white blood cells is diminished. A few hours later the number is increased, and on close examination it is noticed that the percentage of im-

mature and mature cells is increased over the percentage of spent cells. A rational conclusion is that quartz light radiations produce additional leucocytes and hastens their maturity, thus building up the body's immunizing powers. The blood serum shows an increased bacteriocidal effect for all bacteria, but more especially against the specific strain causing the disease.

This explains the healing effect on internal organs brought about by quartz light therapy. Quartz light therapy, in many cases, brings about restoration of normal metabolism quicker than other treatment.

—607 KRESGE BLDG.

FURTHER OBSERVATIONS ON DISTRIBUTION OF VITAMIN B IN SOME VEGETABLE FOODS

Tablets containing varying weights of certain desiccated vegetables were fed by Thomas B. Osborne and Lafayette B. Mendel, New Haven, Conn. (*Journal A. M. A.*, April 15, 1922), in known amounts apart from the standard vitamin B-free food offered, along with water, ad libitum. Experiments made with rats indicate that asparagus, celery, dandelion, lettuce and parsley all contain noteworthy amounts of vitamin B. Asparagus proved to be unexpectedly rich in vitamin B. If these vegetables are considered with respect to their content of vitamin B in comparison with apples and pears, or the juice of grapes, asparagus, celery and lettuce, at least, will be found to exhibit a larger vitamin B potency in terms of the edible product consumed. This evidence gives added justification for the nutritive prominence of the vegetable products examined and serves in part to emphasize their importance in the diet of man.

ELECTROGASTROGRAM AND WHAT IT SHOWS

The first steps have been taken by Walter C. Alvarez, San Francisco (*Journal A. M. A.*, April 15, 1922), in working out the technic of electro-gastrography. The records show that many of the waves which seem to begin in the lower third of the stomach have come as shallow ripples from a pace-making region near the cardia. There are, however, a number of different types of gastric paristalsis, and the stomach can change suddenly from one to another. At times there seems to be a dissociation between the activities of the fundus and the pars pylorica. The fundus can contract several times to the antrum's once. Small, frequent waves are sometimes superimposed upon the larger, slower ones. These findings have been confirmed with mechanical recording devices. Marked blockage of the waves has been observed often in the preantral region. The conduction time of waves traveling down the stomach shows wide variation. Marked tonus changes occur in the duodenum coincident with the arrival of gastric waves at the pylorus. This observation may throw light on the production of pain in duodenal ulcer. The peristaltic rushes down the bowels are shown to originate in gastric waves. The first human electrogastrograms are presented.

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES.

IV—SCOPE OF PUBLIC HEALTH INTERESTS AND ACTIVITIES

JOHN SUNDWALL, Ph. D., M. D.

Professor of Hygiene and Director of the Department of Hygiene and Public Health, University of Michigan, Ann Arbor, Mich.

As has been emphasized in the previous discussions, the center of public health interest has shifted from the environment to the human machine. Furthermore, it has been pointed out that in dealing directly with the person, two more or less distinct interests must be kept in mind. The one is concerned with building up and maintaining sound, vigorous and harmoniously developed bodies—positive health. To this particular interest, the term "health promotion" has been applied. The other interest of public health is confined to the protection of the individual from communicable diseases. Of course, the more that is accomplished along the lines of health promotion the less need be done in those other activities concerned with disease prevention.

Now what are some of the essential interests and activities that must be applied to a "promotion of health" program? Our past efforts directed towards this phase of health work have been but little short of total failure, notwithstanding that we were laboring under the delusion that we were doing much in this particular line. Perusal of programs of courses in the public schools, high schools, colleges and universities reveal, in general, scheduled required courses in personal hygiene. Assuredly, had this wide spread teaching in personal hygiene been as effective as that in the other subjects of the curricula of schools and colleges, let us take geography for example, then we should have at the present moment a citizenry well versed in the fundamentals of health promotion. The truth is, however, that ignorance and neglect of the body—its mechanism and functions are practically universal so far as the laity is concerned.

What has been wrong with our past efforts in teaching health promotion? One of the underlying reasons for our failure to "put across" the principles and practices of personal hygiene—health promotion, has been that the teaching of this science has been relegated to the untrained or superficially trained enthusiast. It has been given over to any one available on the basis that any one can teach hygiene. As a consequence, instruction in hygiene has been largely influenced by empiricism. In fact, empiricism has been at its height here. What the average teacher has observed, erroneously or otherwise, to be good for himself has been "dealt out" as scientific dictum. Hence, the consideration of personal hygiene has

been saturated with absurd fads and non-essentials. Unimportant matters have been emphasized at the expense of important ones. Much time has been wasted in the tiresome consideration of certain theories and practices which the instructor believes he has found to be beneficial to himself. Hobbies have been ridden. There are the fresh air fiends, the disciples of Fletcherism, the vegetarian cranks, the physical culture protagonists, the bathing fanatics and the clothing "frantics"—each group proclaiming that its particular interest is the catholicon for health. These are the examples of the single track mind and yet we know that personal fitness can never be achieved or maintained by following only one avenue of approach. What would have happened to any other subject in a program of study had a similar procedure for its teaching been followed?

What then are the essential things that must be taught in health promotion? (It must be ever borne in mind that health promotion can be achieved only through education. Hence, good scientific teaching is paramount.) It is true that our present knowledge of personal hygiene or health promotion is far from complete. Much is yet to be attained through research and investigation. "What is one man's meat may be another man's poison," holds true, in a large measure, with many of the theories and practices of health promotion.

However, there are a number of fundamental truths at our command that must be applied in order to achieve the goal desired—the sound, active, vigorous, efficient and harmoniously developed individual. In order to attain and maintain positive health, the individual must comprehend his true relation to food, air, activity, rest and bodily poisons. Furthermore, he must be familiar with the role that the mind plays in health and personal efficiency. The term mental hygiene is applied to this particular interest. Some knowledge of sex hygiene is essential. Again, the prevention and correction of bodily defects must be an important phase of the health promotion program.

Now let us outline here some of the important features of a program designed for the purpose of promoting health. This program is largely educational and it must reach the laity by means of regular school class room instruction, club studies, public lectures, press articles, placards and posters. Later on each subject will be discussed in detail.

I. Food: The individual must understand that proper nutrition is indispensable to maintaining health and that we must look upon our food in the same way that we consider fuel for an engine. Our test for efficiency so far as the automobile is concerned is the maximum number of miles that the machine will go on the minimum amount of fuel—gasoline provided. The same principles should be applied to the human machine. There is no doubt but that too much food is consumed by the average individual and that

over ingestion plays an important role as an etiological factor in the production of degenerative diseases. Our chief interest in the study of food in its relation to health and efficiency should be "what is good food." We need concern ourselves but little with adulterated or decomposed foods. The study of foods then should include the following:

(a) Balanced diet: Proteids, Carbohydrates, Fats, Vitamines, Salts. Nature and bodily need of each, minimum daily requirements of each for the active and sedentary life and for the various ages of life, as measured in calories.

(b) Undernourishment and overnourishment and the dangers thereof.

(c) Vitamines and the deficiency diseases.

In connection with foods, the body's daily requirements of matter should be duly considered. Among the minor considerations are mastication and the preservation of food.

II. Air: We know probably less concerning fresh air and ventilation in their relation to the bodily needs than was our assumption several years ago. However, we have every reason to believe that deep respiration, fresh air, ventilation, humidity, outdoor life, are of great importance and should be given their due consideration. Professor Winslow has given us a clean cut definition of what is meant by the term, "fresh air." He tells us that "Fresh air has four qualities. Fresh air, first is cool air. Air that is above 69 degrees F. is always harmful, except for very old people. Whenever the indoor temperature rises above this point, the circulation is upset, one tends to become dull, languid and inefficient, and the delicate membranes of the nose and throat are injured.

"Secondly, fresh air is moving air. Still air blankets the body and produces a deadening, numbing effect. Air in general motion stimulates the skin.

"Thirdly, fresh air is moderately moist air. Either very dry or very humid air is harmful.

"Lastly, fresh air is variable air. Slight changes in temperature and humidity are stimulating and wholesome for the body."

III. Activity: Need of exercise for the harmonious development of the body and for maintaining health; value of out-of-door exercise; correct posture, avoidance and correction of postural defects, flat feet, etc.

IV. Rest: Amount and regularity of sleep; avoidance of overfatigue and overstrain; value of sufficient relaxation.

V. Bodily Poisons: Indogenous-focal infections, such as caries and pyorrhoea, infected tonsils, etc., and the role they play as etiological factors in the degenerative diseases, arthritis, myalgias, neuritis, lassitude and indisposition. Methods of prevention—such as care of teeth, evacuation and elimination of the body's waste matter, etc. Exogenous poisons—such as alcohol, drugs, patent medicines, etc.

VI. Mental Hygiene: We are appreciating more and more the importance of mental hygiene. More suffering and misery are the result of emotional instability with its accompanying neurosis and psychosis than of organic disease. Prevention of the various neuroses and psychoses; mental application and efficiency; conservation of nervous energy; need of social adjustment; need of "finding one's self" are important phases of mental hygiene.

VII. Sex Hygiene: Biology of sex, sublimation of the sex instinct, social diseases.

VIII. Prevention and Correction of Defects:

In addition to the bodily defects mentioned in connection with these various phases of health promotion, special emphasis and consideration should be given to those physical defects that are prone to develop in early life. The findings of the draft examinations will serve as an important index as to what these defects are. Of the defects which unfitted over one-third of all the men examined, 88 per cent can be classified under six heads:

	Per Cent
Disease of bone and joints.....	26
Special senses.....	15
Cardio-vascular	13
Nervous and mental.....	10
Tuberculosis	9½
Defective physical development.....	8

The chief preventable and remediable defects were pronated and flat feet, hernia and enlarged inguinal rings, venereal diseases, tuberculosis, diseased and defective tonsils, diseased and defective bones and joints including postural defects, defective teeth, heart defects, defects of sense organs—especially vision, defects of nutrition and metabolism.

Again sufficient examinations have been made of school children to warrant us to come to the following conclusions. The following figures, I believe, were submitted by Dr. Thomas Wood:

"At least one per cent—200,000 of the 22,000,000 school children in the United States, are mentally defective.

Over one per cent—250,000 at least, of the children are handicapped by organic heart disease.

At least five per cent—1,000,000 children have now, or have had tuberculosis, a danger often to others as well as to themselves.

Five per cent—1,000,000 of them have defective hearing, which, unrecognized, gives many the undeserved reputation of being mentally defective.

Twenty-five per cent—5,000,000 of these school children have defective eyes. All but a small percentage of these can be corrected, and yet a majority of them have received no attention.

Fifteen to twenty-five per cent—3,000,000 to 5,000,000 of them are suffering from malnutrition, and poverty is not the most important cause of this serious barrier to healthy development.

From fifteen to twenty-five per cent—3,000,000 to 5,000,000 have adenoids, diseased tonsils, or other glandular defects.

From 10 to 20 per cent—2,000,000 to 4,000,000 have weak foot arches, weak spines or other joint defects.

From 50 to 75 per cent—11,000,000 to 16,000,000 of our school children have defective teeth, and all defective teeth are more or less injurious to health. Some of these defective teeth are deadly menaces to their owners.

Seventy-five per cent—16,000,000 of the school children of the United States have physical defects which are potentially or actually detrimental to health. Most of these defects are remediable."

The recognition, etiology, prevention and correction—as a rule by proper reference of the bodily defects most likely to occur in early life and as revealed by intensive and extensive physical examinations, should be given particular attention in all health promotion interests and activities.

INFECTIOUS JAUNDICE OCCURRING IN NEW YORK CITY

A preliminary report is presented by Augustus Wadsworth, et al, Albany, N. Y. (Journal A. M. A., April 15, 1922) of an investigation of outbreaks of what appeared to be an infectious or epidemic type of jaundice with the report of a case of accidental infection of the human subject with *Leptospira icterohaemorrhagiae*. The patient was a member of the laboratory staff, who had been working with virulent leptospiras obtained from a rat. This case is believed by the authors to be the first instance of human infection developing from cultures isolated from rats in this country. The investigation is being continued.

Program of the 57th Annual Meeting of the Michigan State Medical Society, Flint, June 7, 8, 9, 1922

OFFICIAL CALL

The 57th Annual Meeting of the Michigan State Medical Society, its Council and House of Delegates will be held in Flint, Michigan, June 7, 8 and 9, 1922, for the transaction of official business that properly comes for consideration under the provisions of our Constitution and By-Laws.

W. J. KAY, President.

W. J. DuBois, Chairman of the Council.

J. D. BROOK, Speaker of the House of Delegates.

Attest: F. C. WARNSHUIS, Secretary.

MEETING PLACES

GENERAL SESSION—Ballroom, Mezzanine floor, Hotel Durant.

HOUSE OF DELEGATES—Grill room, basement floor, Hotel Durant.

MEDICINE—June 8th, hotel ballroom. June 9th, Methodist Church, corner of Garland Street and Second Avenue, one block west of Hotel Durant.

SURGERY—Ballroom, Mezzanine floor, Hotel Durant.

GYNECOLOGY—Basement floor, Hotel Durant.

EYE, EAR, NOSE AND THROAT—Parlor B, mezzanine floor, Hotel Durant.

PEDIATRICS—Parlor A, mezzanine floor, Hotel Durant.

PUBLIC HEALTH—Vestry room, Methodist Church.

EXHIBITS—Mezzanine floor and corridors, Hotel Durant.

REGISTRATION BOOTH—Lobby floor, Hotel Durant.

HOTEL HEADQUARTERS—Hotel Durant.

TIME OF MEETINGS

Flint city time is Eastern Standard.

Interurban street railway time is Eastern Standard.

Railroad time is Central Standard.

June 7, 1922.

2:00 P. M. House of Delegates.

5:00 P. M. Council Meeting.

7:00 P. M. House of Delegates.

June 8.

8:00 A. M. House of Delegates.

10:00 A. M. General Meeting.

1:15 P. M. Section Meetings.

7:30 P. M. General Meeting.

June 9.

8:00 A. M. House of Delegates.

9:15 A. M. Section Meetings.

11:30 A. M. General Meeting.

1:15 P. M. Section Meetings.

4:15 P. M. Adjournment.

HOTELS

DURANT—Second Avenue and Saginaw, 300 rooms. Double rooms, \$4.50 to \$10. Single rooms with double beds or twin beds, \$3.50 to \$4.

DRESDEN—Saginaw and Third Streets, 100 rooms, \$2 up.

BRYANT—305 S. Saginaw Street, 50 rooms, \$2 up.

CRYSTAL—Beach and Union Streets, 100 rooms, \$1.50 up.

A list of rooms in private houses may be consulted at the Registration Booth.

GARAGES

Wooden & Barnes—108 West Second Avenue, 75 cars, 75 cents a day.

Flint Exide Battery Service Co.—711 East Second Avenue, 200 cars, 50 cents a day.

B. V. Motor Sales—219 West Kearsley, 100 cars, 75 cents a day.

COMMITTEES

GENESEE COUNTY MEDICAL SOCIETY FOR STATE MEETING

RECEPTION—Dr. H. E. Randall and members of the society.

ENTERTAINMENT—Chairman, Dr. C. H. O'Neil; members, C. F. Moll, J. W. Orr, M. W. Clift, L. S. Willoughby, W. G. Bird

LADIES ENTERTAINMENT—Mrs. B. E. Burnell, Mrs. A. J. Reynolds, Mrs. H. E. Randall, Mrs. J. W. Orr, Dr. Nellie Ward

EXHIBITS—Chairman, Dr. J. W. Evers; members, F. E. Reeder, George Curry.

HOTELS AND ACCOMMODATIONS—Chairman, Dr. H. A. Stewart; members, Drs. M. S. Knapp, B. E. Burnell, A. A. Patterson

LOCAL ARRANGEMENTS—Chairman, Dr. D. D. Knapp; members, Drs. C. Chapel, E. G. Dimond.

PRINTING—Chairman, Dr. George Goering; members, Drs. R. S. Morrish, A. C. Blakely.

AUTOMOBILE—Chairman, Dr. F. L. Tupper; members, Drs. D. L. Treat, L. H. Childs.

FIRST GENERAL MEETING

W. J. Kay, President, Lapeer.

F. C. Warnshuis, Secretary, Grand Rapids.

PLACE: Ballroom, Hotel Durant.

TIME: June 8, 10 A. M.

1. Call to Order.

2. Invocation—Rev. Fr. Patrick Dunnigan, Major Chaplain Michigan National Guard.

3. Address of Welcome.
F. B. Miner, M. D., President Genesee County Medical Society.
4. President's Annual Address—W. J. Kay, M. D., Lapeer.
5. Address—Marion L. Burton, President University of Michigan.
6. Report of House of Delegates.
7. Resolutions.
8. Adjournment.

SECOND GENERAL MEETING

TIME: June 8, 7:30 P. M.

PLACE: Ballroom, Hotel Durant.

1. Opening Remarks—President Kay.
2. Address—The Value of Periodic Medical Examinations.
Haven Emerson, M. D., New York.
3. Adjournment.

THIRD GENERAL MEETING

TIME: June 9, 11:30 A. M.

PLACE: Ballroom, Hotel Durant.

1. Call to Order.
2. Report of House of Delegates.
3. Resolutions.
4. Introduction of President-Elect.
5. Adjournment.

COUNCIL MEETINGS

June 7—5 P. M.

June 8—12 M.

June 9—12 M.

HOUSE OF DELEGATES

J. D. Brook, M. D., Grandville, Speaker.
Carl F. Moll, M. D., Flint, Vice-Speaker.
F. C. Warnshuis, M. D., Grand Rapids, Secretary.

FIRST SESSION

PLACE: Grill Room, Hotel Durant.

TIME: June 7, 2 P. M.

1. Call to Order.
2. Roll Call.
3. Report of Committee on Revision of Constitution and By-Laws—W. T. Dodge, Big Rapids.
4. Adjournment.

SECOND SESSION

TIME: June 7, 7:30 P. M.

1. Call to Order.
2. Roll Call.
3. Reports of Committees.
4. New Business.
5. Adjournment.

THIRD SESSION

TIME: June 8, 8 A. M.

1. Roll Call.
2. Reports of Committees of the House.
3. New Business.
4. Unfinished Business.
5. Adjournment.

FOURTH SESSION

TIME: June 9, 8 A. M.

1. Roll Call.
2. Report of Nominating Committee.
3. Election.
4. Unfinished Business.
5. Adjournment.

DELEGATES AND ALTERNATES

NOTE—Delegates in blackface capitals; alternates in small type.

ALPENA—Branch No. 48

D. A. Cameron, Alpena.
A. E. Bonneville, Alpena.

ANTRIM-CHARLEVOIX-EMMETT—Branch No. 41

Wm. Parks, East Jordan.
F. F. Grillette, Alanson.

BARRY—Branch No. 26

E. T. Morris, Nashville.
J. M. Cross, Delton.

BAY-ARENAC-IOSCO—Branch No. 4

G. McDowell, Bay City.
V. H. Dumond, Bay City.
M. Slattery, Bay City.
C. A. Stewart, Bay City.

BENZIE—Branch No. 59

William J. Shilliday, Lake Ann.
Fordyce H. Stone, Beulah.

BERRIEN—Branch No. 50

J. F. Crofton, St. Joseph.
H. A. Schwendener, St. Joseph.

BRANCH—Branch No. 9

Samuel Schultz, Coldwater.
F. H. Harris, Coldwater.

CALHOUN—Branch No. 1

W. S. Shipp, Battle Creek.
G. C. Hafford, Albion.
E. L. Eggleston, Battle Creek.
C. S. Gorsline, Battle Creek.

CASS—Branch No. 36

CHEBOYGAN—Branch No. 58

CHIPPEWA-LUCE-MACKINAW—Branch No. 35
R. Bennie, Sault Ste. Marie.
C. J. Ennis, Sault Ste. Marie.

CLINTON—Branch No. 39

W. M. Taylor, Ovid.
W. B. McWilliams, Maple Rapids.

DELTA—Branch No. 38

T. J. Hutton, Foster City.
G. W. Moll, Escanaba.

DICKINSON-IRON—Branch No. 56

EATON—Branch No. 10

C. L. McLaughlin, Vermontville.
Stanley Stealey, Charlotte.

GENESEE—Branch No. 34

Carl F. Moll, Flint.
J. C. Benson, Flint.
W. H. Winchester, Flint.
D. D. Knapp, Flint.

GOGEBIC—Branch No. 52

W. E. Tew, Bessemer.
T. S. Crosby, Wakefield.

GRAND TRAVERSE-LEELANAU—

Branch No. 18

F. G. Swartz, Traverse City.
E. L. Thirlby, Traverse City.

GRATIOT-ISABELLE-CLARE—Branch No. 25

C. F. Dubois, Alma.
M. F. Brondstetter, Mt. Pleasant.

HILLSDALE—Branch No. 3

D. W. Fenton, Reading.
G. R. Hanke, Ransom.

HOUGHTON-BARAGA-KEWEENAW—

Branch No. 7

A. F. Fischer, Hancock.
A. D. Aldrich, Houghton.

HURON—Branch No. 47**INGHAM—Branch No. 40**

B. M. Davey, Lansing.
W. G. Wight, Lansing.
E. I. Carr, Lansing.
Karl Brucker, Lansing.

IONIA—Branch No. 16

G. A. Stanton, Belding.
H. M. Maynard, Ionia.
J. F. Pinkham, Belding.
R. R. Whitten, Ionia.

JACKSON—Branch No. 27

E. S. Peterson, Jackson.
H. A. Brown, Jackson.

KALAMAZOO-VAN BUREN-ALLEGAN—

Branch No. 64

G. L. Bliss, Kalamazoo.
A. S. Youngs, Kalamazoo.
R. P. Stark, Allegan.
F. C. Penoyer, South Haven.
O. D. Hudnutt, Otsego.
D. H. Eaton, Kalamazoo.

KENT—Branch No. 49

J. S. Brotherhood, Grand Rapids.
A. V. Wenger, Grand Rapids.
C. C. Slemmons, Grand Rapids.
F. J. Lee, Grand Rapids.
G. H. Southwick, Grand Rapids.
L. H. Chamberlain, Grand Rapids.
W. H. Veenboer, Grand Rapids.
A. J. Baker, Grand Rapids.

LAPEER—Branch No. 23

F. A. Tinker, Lapeer.
D. J. O'Brien, Lapeer.

LENAWEE—Branch No. 51

C. H. Westgate, Weston.
I. Spalding, Hudson.

LIVINGSTON—Branch No. 6**MACOMB—Branch No. 48****MARQUETTE-ALGER—Branch No. 28**

V. H. Vandeventer, Ishpeming.
A. W. Hornbogen, Marquette.

MASON—Branch No. 17**MECOSTA—Branch No. 8**

O. J. East, Reed City.
A. W. McCandless, Morley.

MENOMINEE—Branch No. 55

R. A. Walker, Menominee.
E. Sawbridge, Stephenson.
S. C. Mason, Menominee.
J. T. Kaye, Menominee.

MIDLAND—Branch No. 43

E. J. Dougher, Midland.
J. H. Sherck, Midland.

MONROE—Branch No. 15

Herbert W. Landon, Monroe.
W. F. Acker, Monroe.

MONTCALM—Branch No. 13**MUSKEGON—Branch No. 61**

F. B. Marshall, Muskegon.
E. S. Thornton, Muskegon.

NEWAYGO—Branch No. 50

C. B. Long, Fremont.
A. C. Thompson, Hesperia.

OAKLAND—Branch No. 3

H. S. Sibley, Pontiac.
A. V. Murtha, Pontiac.

OCEANA—Branch No. 67**O. M. C. O. R. O.—Branch No. 11**

A. C. MacKinnon, Atlanta.
R. J. Reebe, West Branch.

ONTONAGON—Branch No. 66

E. J. Evans, Ontonagon.
J. S. Nitterauer, Ontonagon.

OSCEOLA-LAKE—Branch No. 30**OTTAWA—Branch No. 32**

R. H. Nichols, Holland.
A. Leenhouts, Holland.

PRESQUE ISLE—Branch No. 63**SAGINAW—Branch No. 14**

James D. Bruce, Saginaw.
C. H. Sample, Saginaw.

SANILAC—Branch No. 20

J. W. Scott, Sandusky.
J. C. Webster, Marlette.

SCHOOLCRAFT—Branch No. 57

J. W. O'Neil, Manistiquie.
W. J. Saunders, Manistiquie.

SHIAWASSEE—Branch No. 33

H. A. Hume, Owosso.
W. E. Ward, Owosso.

ST. CLAIR—Branch No. 45

S. K. Smith, Port Huron.
A. L. Callery, Port Huron.

ST. JOSEPH—Branch No. 29**TRI COUNTY—Branch No. 62**

G. D. Miller, Cadillac.
W. Joe Smith, Cadillac.

TUSCOLA—Branch No. 44

O. G. Johnson, Fostoria.
R. L. Dixon, Wahjamego.

WASHTENAW—Branch No. 42

J. A. Wessinger, Ann Arbor.
Udo J. Wile, Ann Arbor.

E. B. Kellogg, Ypsilanti.
Fred Waldron, Ann Arbor.

WAYNE—Branch No. 2

Raymond C. Andries, Detroit.
John N. Bell, Detroit.
J. H. Charters, Detroit.
John L. Chester, Detroit.
Harry L. Clark, Detroit.
Raymond L. Clark, Detroit.
Guy L. Connor, Detroit.
James E. Davis, Detroit.
George E. Frothingham, Detroit.
R. K. Johnson, Detroit.
J. B. Kennedy, Detroit.
J. Albert Kimzey, Detroit.
Charles F. Kuhn, Detroit.
George M. Livingston, Detroit.
Henry A. Luce, Detroit.
Angus McLean, Detroit.
Richard E. Mercer, Detroit.
Charles H. Oakman, Detroit.
Howard W. Peirce, Detroit.
Burt L. Shurly, Detroit.
George K. Sipe, Detroit.
Henry L. Ulbrich, Detroit.
Walter J. Wilson, Detroit.
H. Wellington Yates, Detroit.
Joseph H. Andries, Detroit.
Wyman D. Barrett, Detroit.
Fred N. Blanchard, Detroit.
W. N. Braley, Detroit.
Frederick B. Burke, Detroit.
E. W. Caster, Detroit.
Aaron L. Chapman, Detroit.
Wm. R. Clinton, Detroit.
J. W. Cunningham, Detroit.
Walter A. DeFoe, Detroit.
Douglas Donald, Detroit.
Leo C. Donnelly, Detroit.
Ledru O. Geib, Detroit.
Joshua Hanser, Detroit.
Wm. H. Honor, Wyandotte.
Homer I. Kedney, Detroit.
John C. Koch, Detroit.
Norman O. LaMarche, Detroit.
Grant McDonald, Detroit.
James A. McGarvah, Detroit.
James A. MacMillan, Detroit.
George P. McNaughton, Detroit.
Robert G. Owen, Detroit.
Alexander Thomson, Detroit.

SECTIONAL MEETINGS

June 8—1:15 P. M.

June 9—9:00 A. M.

June 9—1:15 P. M.

SECTION ON GYNECOLOGY AND OBSTETRICS

Chairman—L. W. Haynes, M. D., Detroit.
Secretary—R. Cron, M. D., Ann Arbor.

FIRST SESSION

June 8

Meeting Place: Basement, Hotel Durant.

1. Acute Complete Inversion of the Uterus.
L. W. Haynes, M. D., Detroit.

Synopsis: Brief review of literature to date shows that with improved obstetrical technique the condition is becoming more frequent. Theory of some predisposing factor in certain uteri. Summing up of answers received to recent questionnaire regarding the percentage of occur-

rences, etiology, treatment and mortality. Report of cases.

2. True Eclampsia and Renal Eclampsia.
Walter E. Welz, M. D., F. A. C. S., Detroit.

Synopsis: True eclampsia occurs as a toxic disease of late pregnancy in women who were normal before pregnancy. Renal eclampsia is a toxic condition during pregnancy the result of nephritis before pregnancy. Confusion exists because of lack of distinction between these. Proper classification of all eclamptics is essential to improve knowledge, as well as to improve mortality rate.

3. General Impressions of the Relationship and Clinical Significance of Backache in Gynecological Cases.

John W. Sherrick, M. D., Ann Arbor.

Synopsis: The frequency of backache is becoming more and more important in the diagnosis and treatment of gynecological pathology and its relationship as a separate and associated entity in a large percentage of these cases, is proof of such significance that every practitioner who deals with these cases must revise his knowledge of its significance and his treatment and the prognosis offered for relief. Methods of examination will be discussed with special emphasis placed on those factors that are designated as the postural back in contradistinction to definite spinal pathology and to pelvic pathology giving rise to reflex symptoms in the back.

4. Irritable Bladder in Women.

W. P. Manton, M. D., Detroit.

Synopsis: While the female bladder is subject to practically the same disorders that affect the male, with variations due to anatomical surroundings, the urologist has sadly neglected this branch of his specialty, and devoted his attention to the possibly more interesting diseases affecting the latter. Following the publications of A. J. C. Skene and the epoch-making work of Kelly, comparative little literature has accumulated dealing with the disorders appearing in women. Bladder irritation, as one of the most frequently encountered symptoms in this sex, is usually treated by sedatives or, on the assumption that a greater or less inflammation of that organ exists, the active washing out of the viscus is carried out. The object of this paper is to point out wherein such treatment is frequently undesirable, and often harmful.

SECOND SESSION

June 9, A. M.

Symposium—The Indications For and Methods of the Artificial Termination of Pregnancy.

1. Toxemias of Pregnancy Including Preeclampsia, Eclampsia and Nephritis.

Reuben Peterson, M. D., Ann Arbor.

Synopsis: Pre-eclampsia, when toxic symptoms are increasing in spite of treatment. Eclampsia, in the presence of convulsions, uterus should be emptied by method giving rise to least shock. This should be done as soon after the first convulsion as possible. Exception is where convulsions occur after onset of labor which will be rapidly terminated by natural forces. Nephritis, simply another form of intoxications. Results from nephritic disease. Same rules apply for artificial termination of pregnancy, since indications will depend upon degree and progress of toxemia. Discussant: George A. Kamperman, M. D., Detroit.

2. Pernicious Vomiting of Pregnancy.

John N. Bell, M. D., Detroit.

Synopsis: Frequency—True pernicious vomiting probably always toxic. Classification of types. Etiology—Still a mooted question. Clinical manifestation in pernicious vomiting and eclampsia. Significance of blood chemistry in pernicious vomiting. Endocrine disturbances and Hirst's theory of the corpus luteum. Pathology—The liver the organ chiefly affected, acute yellow atrophy, eclampsia and pernicious vomiting. Diagnosis—Importance of determining the ammonia co-efficient in the urine. Prognosis still extremely grave.

Discussant: Norman F. Miller, M. D., Ann Arbor.

3. Heart Disease and Pregnancy.

Frank N. Wilson, M. D., and George R. Hermann, M. D., Ann Arbor.

Synopsis: Heart disease which arises before the age of 40 is due chiefly to rheumatic fever and its allies; growing pains, rheumatic myositis, chorea, and sore throat. Rheumatic heart disease is, therefore, much more frequently present in the pregnant woman than any other type.

The heart does not hypertrophy during pregnancy; certainly not in a degree which can be detected during life and most post-mortem observations have been negative. It is hardly to be doubted, however, that the work of the heart is increased during the latter months of pregnancy and during labor the heart is subjected to a severe strain.

The great majority of women with heart disease go through pregnancy and labor without any immediate ill effect. Only about one in five has symptoms of cardiac weakness and only a few of those that develop heart failure die. The interruption of pregnancy is not indicated except in those who have a high degree of heart failure. In these the fetal mortality is so high that it is not advisable to allow the prospective mother to run the great risk of labor since it is unlikely that a viable child will be obtained.

Discussant: C. E. Boys, M. D., Kalamazoo.

4. Contracted Pelves and Other Serious Maternal Defects Requiring Artificial Termination of Pregnancy.

H. H. Cummings, M. D., Ann Arbor.

Synopsis: The most common types of pelvic contractions. Absolute and relative indications and simple methods of detecting contractions. Importance of outlet pelvimetry.

Cesarean section offers the best method of terminating pregnancy in contracted pelves.

Dystocia due to fibromyomata, carcinoma of the cervix, ovarian cysts, pelvic osteomata, atresias of the birth canal, former operations; methods of terminating pregnancy under these conditions. Lantern slides showing outlet pelvimetry.

Discussant: Alexander Martin, M. D., Grand Rapids. General Discussion.

THIRD SESSION

June 9, P. M.

Election of Chairman.

1. Further Experience With the Two-Flap Low Incision Cesarean Section.

Alfred C. Beck, M. D., Brooklyn, N. Y.

Synopsis: Brief description of operation. Emphasizing some of the details which are essential to a good result. Difficulties encountered by the operator who does this operation without having seen it previously performed. Suggestions which aim to eliminate these difficulties. Conclusions that might be drawn from our experience with this technic to date. (Lantern slides.)

2. Present Status of the Surgical Treatment of Uterine Prolapse.

F. C. Witter, M. D., Detroit.

Synopsis: 1. Etiological factors. 2. Review of anatomy of pelvic floor and supporting structures. 3. Degrees of prolapse. 4. Discussion of the various operations best adapted to accomplish the desired results with varying conditions in the different cases. (Lantern slides.)

3. Diagnostic Value of Artificial Pneumoperitoneum in Sterility in Women.

Bernhard Friedlaender, M. D., Detroit.

Synopsis: Discussion of sterility in women. Classification as to cause of two hundred cases of sterility, examined by author. Discussion of an illustrative case of female sterility with particular reference to points to be observed in the examination. Technic of artificial pneumoperitoneum. Operation for relief of sterility in this case. Results. (Lantern slides.)

4. Indications for Cesarean Section—a Study of 100 Cases.

Max Burnell, M. D., Flint.

Synopsis: The indications for this series of cesarean section group themselves under the following headings: 1. Primipara—with contracted pelvis. 2. Multipara—with contracted pelvis. 3. Post-operative dystocia. 4. Placenta Praevia. 5. Pelvic tumors. 6. Decompensated cardiac cases. 7. Rigid cervix. 8. Previous cesarean section. 9. Fetal malpositions, impacted transverse and posterior face. 10. Eclampsia. 11. Rupture and impending rupture of the uterus. 12. Malformation of the uterus (double uteri). (Lantern slides.)

SECTION ON MEDICINE

Chairman—W. H. Marshall, M. D., Flint.

Secretary—W. D. Mayer, M. D., Detroit.

FIRST SESSION

June 8, 1:15 P. M.

Meeting Place: Ballroom, Hotel Durant.

Symposium on Hyperthyroidism (Combined Session with the Sections of Surgery and Pediatrics).

1. Pathology.

Louis B. Wilson, M. D., Mayo Clinic, Rochester, Minn.

2. The Internist's Viewpoint.

Charles Louis Mix, M. D., Chicago, Ill.

3. Surgery.

George Crile, M. D., Cleveland, Ohio.

4. Radiotherapeutics.

Wibur O. Upson, M. D., Battle Creek.

5. The Prevention of Simple Goiter in Man.

O. P. Kimball, M. D., Cleveland, Ohio.

SECOND SESSION

June 9, 9 A. M.

Meeting Place: Methodist Church.

1. Chairman's Address.

2. Basal Metabolism.

Hugo A. Freund, M. D., Detroit.

Synopsis: A definition of Basal Metabolism. Diseases in which basal metabolism varies from the normal. The value of basal metabolism in the management and differential diagnosis of diseases of the thyroid gland.

Discussant: John B. Jackson, M. D., Kalamazoo.

3. Treatment of Mild Diabetes Mellitus.

Phil L. Marsh, M. D., Ann Arbor.

Synopsis: Reasons for treating mild diabetics. Loss of tolerance. Importance of complications. Method of treatment. Diet. Personal hygiene. Instruction of patient. Treatment of complications.

Discussant: Stuart Wilson, M. D., Detroit.

4. Problems of Fat Metabolism.

Frank J. Sladen, M. D., and Irvine McQuarrie, M. D., Detroit, Mich.

Discussant: L. H. Newburgh, M. D., Ann Arbor.

5. Paralysis Agitans.

Frank R. Starkey, M. D., Detroit.

Discussant: Carl D. Camp, M. D., Ann Arbor.

6. Indications for Therapeutic Pneumothorax.

Herbert M. Rich, M. D., Detroit.

Synopsis: In tuberculosis, cavitation, hemoptysis, question of adhesions. In lung abscess. In pleurisy. In bronchiectasis.

Discussant: Albert H. Garvin, M. D., Detroit.

7. Management of Tabes Dorsalis.

Fred P. Currier, M. D., Ann Arbor.

Review of cases treated. Review of literature.

General management. Treatment found most useful.

Discussant: Wm. H. Riley, M. D., Battle Creek.

THIRD SESSION

June 9, 1:15 P. M.

Meeting Place: Methodist Church.

Election of Section Officers.

1. Difficulties in Diagnosis of Right Upper Quadrant Cases.

Clyde F. Karshner, M. D., Grand Rapids.

Discussant: Clyde E. Vreeland, M. D., Detroit.

2. Radiation in the Treatment of Blood Diseases.

L. Stern, M. D., Ann Arbor.

Discussant: Harry B. Schmidt, M. D., Detroit.

3. Management of the Cardio-Renal Case.

M. A. Mortenson, M. D., Battle Creek.

Discussant: Ernest W. Haas, M. D., Detroit.

4. The Heart Muscle.

William Northrup, M. D., Grand Rapids.

Synopsis: History taking. Need of complete physical examination. Special examination of the heart. How to determine muscle efficiency.

Discussant: Frank N. Wilson, M. D., Ann Arbor.

5. Symptoms and Diagnosis of Coronary Sclerosis and Allied Conditions.

Collins H. Johnson, M. D., Grand Rapids.

Discussant: Walter J. Wilson, M. D., Detroit.

6. Heart Murmurs.

John L. Chester, M. D., Detroit.

Discussant: John McLurg, M. D., Bay City.

7. Medical Management Following Gastro-Intestinal Surgery.

I. W. Green, M. D., Ann Arbor.

Synopsis: Need of co-operation between surgeon and internist. Alteration of normal function by surgical procedures. Re-investigation of digestive ability after operation. Advice as to diet and management. Treatment after gall bladder operations.

Discussant: Charles S. Kennedy, M. D., Detroit.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Chairman—G. E. Winter, M. D., Jackson.

Secretary—Howard W. Peirce, M. D., Detroit.

FIRST SESSION

June 8, 1:15 P. M.

Meeting Place: Parlor B, Mezzanine Floor.

1. Conservation of the Sac in Dacryocystitis.

Chas. H. Baker, M. D., Bay City.

Disease caused by bacterial invasion from both ends of the sac.

Germs most commonly found.

Nasal disease believed the most common source of the infection.

Treatment by small probes through the undivided punctum commonly fails.

Slitting and occasional use of large probes gives better results.

Extirpation too frequently resorted to and the objections to this method.

Nasal anastomosis a better plan.

Plan of treatment by slitting of the canaliculus division of stricture and passage daily of large probes results in cure of most cases without the annoyance of tears left by extirpation.

Discussant: W. G. Bird, M. D., Flint.

2. Ophthalmia Neonatorum—Report of 230 Cases.

Geo. M. Waldeck, M. D., Detroit.

Report of 230 cases at Children's Free Hospital.

This paper is based principally on a series of 230 cases of Ophthalmia Neonatorum from the Ophthalmic Ward of the Children's Free Hospital between the time of the opening of the ward in 1910 to September, 1919. All cases were cared for in the special ward equipped solely for that purpose, by nurses specially instructed in this work in constant attendance.

Gonococcus was isolated in 55 per cent of cases. Eleven cases died of concurrent disease, two cases were moved from the hospital against advice, the outcome of which was not learned, and two were cases of infection in older children with staphylococcal eyes. These are not included in the percentage.

There was loss of sight in one eye in eight cases, five of which had corneal ulcers on admission, the other three developed ulcers while under treatment in the hospital. There were six cases of blindness in both eyes, in all of whom the cornea was involved on admission. All these cases were of two and one-half to six weeks' duration before being brought to the hospital, and in only one of them was there a chance of saving any vision. In this case one cornea was still intact on admission, but became involved very soon after, and the vision was lost.

Omitting these cases in which ulceration of the cornea precluded visual result on admission to the hospital, there was no loss of vision on leaving the hospital in 201 out of 205 cases, or 98.04 per cent. In three cases, or 1.42 per cent, there was loss of vision in only one eye, and in one case, or 0.48 per cent, total blindness resulted.

Various treatments are discussed. The treatment most successful in the present series is the use of 25 per cent argyrol every hour until the discharge becomes less, then every three hours, and eventually three times daily. Two per cent solution of silver nitrate carefully applied to the averted eyelids was also used once daily in stubborn cases. No case was discharged as well until all inflammation had subsided and until two smears were found negative.

Discussant: F. J. Cady, M. D., Saginaw.

3. The Blind Spot. (By Invitation.)

Harry G. Gradle, M. D., Chicago, Ill.

Synopsis: Short resume of the history of our knowledge of the Blind Spot. The Optic Tract anatomy and physiology that lead to the presence of a Blind Spot. Methods of measuring the Blind Spot and its physiologic size. Abnormalities of the Blind Spot in various diseases and the significance thereof.

Discussant: Harold Wilson, M. D., Detroit.

4. Amblyopia Due to Sinusitis.—Report of Two Cases.

Walter R. Parker, M. D., Detroit.

Abstract. First case, male, almost complete loss of vision associated with sinusitis. Complete recovery following operation on ethmoids. Second case, male, partial blindness one eye. Complete recovery following drainage after operation for deviated septum.

Discussant: Roy B. Canfield, M. D., Ann Arbor.

5. Rudimentary Lamellar Cataract.

Herman Grant, M. D., Detroit.

Synopsis: Clinical picture of early type, in child of 12 years of age. Stationary. Refraction failures. Advantages of Electric Retinoscope.

Discussant: Raymond Sleight, M. D., Battle Creek.

SECOND SESSION

June 9, 9 A. M.

1. Chairman's Address.

G. E. Winter, M. D., Jackson.

2. X-Ray Treatment in Diseases of the Ear, Nose and Throat.

Wm. Evans, M. D., Detroit.

Purpose of the paper: To present the conclusions, personal and otherwise, regarding this method.

Special attention will be directed to the treatment of the tonsils and other lymphoid hypertrophies, and to diphtheria carriers.

Will indicate lesions that respond and give technic in detail.

Discussant: V. M. Moore, M. D., Grand Rapids.

3. Tubercular Laryngitis—Diagnosis and Treatment.

Burt R. Shurley, M. D., Detroit.

Synopsis: Tuberculous Laryngitis as an entity. Its relation to pulmonary infection. Differential diagnosis. Importance of early findings. Involvement of the epiglottis. Operative procedure, indications and technic. Treatment topical, surgical, X-Ray. The value of sunlight and other light rays reflected. Treatment carried on by the patient under instruction. Climatic treatment with observation of results.

Discussant: Guy McFall, M. D., Detroit.

4. Indications for Radium Therapy in Ophtho-Oto-Laryngology.

R. E. Loucks, M. D., Detroit.

THIRD SESSION

June 9, 1:15 P. M.

Election of Chairman and Secretary.

Symposium:

1. Acute Mastoiditis.

Alexander R. McKinney, M. D., Saginaw.

Pathology, diagnosis and treatment of Simple Mastoiditis.

Middle ear and Mastoid anatomically and physiologically one. Mastoid always involved in suppurative otitis media, most cases healing spontaneously. Amount of bone destruction dependent on the particular infecting organism. Examination of aural discharge for bone debris, transillumination and radiography important diagnostic aids. Persistence of symptoms indicate surgery.

Discussant: A. E. Owen, M. D., Lansing.

2. Chronic Mastoiditis.

Wilfrid Haughey, M. D., Battle Creek.

Indications for radical operation. Pathology. Method of operation. Choice of closure. After treatment. Results.

Discussant: E. P. Wilbur, M. D., Kalamazoo.

3. Sinus Thrombosis.

Don M. Campbell, M. D., Detroit.

A complication in various forms of Sepsis in the temporal bone.

Anatomic considerations. Types of Mastoids. Position of the Sinus, right or left side. Position impotency of the Antrum.

Types of infection. Importance of bacteriologic study. The bearing of temperature sweats, chills, blood cultures and general condition of the patient on diagnosis.

Difficulty of determining on which side the Thrombosis is in double post-operative cases. Report of two such instances.

The proper management of the Jugular in case the Sinus is surgically attacked.

Prognosis.

Discussant: Emil Amberg, M. D., Detroit.

4. Brain Abscess.

Max Peet, M. D., Ann Arbor.

Discussant: Max Ballin, M. D., Detroit.

5. Labyrinthitis.

Geo. E. Frothingham, M. D., Detroit.

Synopsis: Source of invasion. Pathology. Symptoms indicating involvement of the Labyrinth. Indications requiring Radical Mastoid or Labyrinth operation.

Discussants: B. N. Colver, M. D., Battle Creek;

Neil Bentley, M. D., Detroit.

PUBLIC HEALTH SECTION

FIRST SESSION

Thursday, June 8, 1:15 P. M.

Meeting Place: Vestry Room, Methodist Church.

1. Address by H. B. Neagle, M. D., Adrian, President Michigan Public Health Association.

2. National Health Questions.

A. J. McLoughlin, M. D., President American Public Health Association.

3. Program of the Michigan State Department of Health.

R. M. Olin, M. D., State Commissioner of Health.

4. Organization and Function of Local Boards of Health.

Henry F. Vaughn, D. P. H., Detroit, Commissioner of Health.

5. Relation Between the Board of Health and the Practicing Physician.

Guy L. Kiefer, M. D., Detroit.

Discussion: W. J. Kay, Lapeer, President Michigan State Medical Society;

J. B. Kennedy, M. D., Detroit, Chairman Legislative Committee, Michigan State Society.

SECOND SESSION

Friday, June 9, 9 A. M.

1. Symposium—Proper Functions and Duties of Public Health Nurse.

(a) Point of View of the Health Officer.

David Littlejohn, M. D., Health Officer, Ishpeming, Mich.

(b) Point of View of the Nurse.

Miss Harriet Leck, Director, Division Child Welfare, State Department of Health.

(c) Point of View of the Public.

Rev. W. S. Carpenter, Flint.

2. Cardiac Clinics for Children.

Harry B. Schmidt, M. D., Detroit

Discussion:

3. Symposium—Methods of Controlling Acute Contagious Diseases.

(a) Point of View of the Health Officer.

Wm. N. Braley, M. D., Health Officer, Highland Park, Mich.

(b) Quarantine vs. Isolation.

A. H. Rockwell, M. D., Health Officer, Kalamazoo.

(c) Legal Aspects.

Judge L. W. Carr, Lansing.

(d) Outbreak in Schools.

Elmer W. Schnoor, M. D. Grand Rapids.

(e) The Uses of Whooping Cough Vaccine.

H. S. Berman, M. D., Detroit.

(f) Blood Sugar in Scarlet Fever and in Diphtheria.

M. B. Kay, M. D., Detroit.

4. Training Required for a Health Officer.

John Sundwall, M. D., Ann Arbor.

THIRD SESSION

Friday, June 9, 1:15 P. M.

Election of Chairman and Secretary.

1. The Child Health Demonstration Center.

Walter H. Brown, M. D., Director, National Child Health Demonstration Center, Mansfield, Ohio.

Discussion:

2. Symposium—Laboratory Service in Public Health Work.

(a) Facilities Offered by Private Laboratories.

R. G. Owen, M. D., Detroit.

(b) Biological Laboratories.

E. W. Lescohier, M. D., Parke, Davis & Co., Detroit.

(c) State Department of Health.

C. C. Young, M. D., Lansing.

3. Symposium—The Importance of Statistical Records in Public Health Work.

(a) Births, Deaths and Case Records.

W. J. V. Deacon, M. D., Director, Division of Communicable Diseases, State Department of Health.

(b) The Commercial Importance of Vital Statistics.

H. W. Becker, Metropolitan Life Insurance, Grand Rapids.

(c) The Mercantile Value of Vital Statistics.

Mr. Henry Shattuck, Statistician, Dodge Bros. Motor Car Co., Detroit.

PEDIATRIC SECTION

Chairman—F. B. Miner, M. D., Flint.

Secretary—Lafon Jones, M. D., Flint.

FIRST SESSION

Thursday Afternoon, June 8

Meeting Place: Parlor A, Hotel Durant.

The section will meet with the sections on Medicine and Surgery, in a symposium of Thyroid Diseases.

This section is represented by Dr. O. P. Kimball of Cleveland, Ohio, who will speak on the "Prevention of Simple Goiter in Man."

SECOND SESSION

Friday Morning, June 9

1. The Role of Acidified Milk in Infant Feeding.

Roy Greenthal, M. D., Ann Arbor.

Abstract: "A lactic acid milk was prepared by adding C. P. lactic acid to pasteurized milk. This milk has been fed to infants with apparently as much success as lactic acid milk prepared with the *Bacillus Bulgaricus*. It would seem that much of the benefit derived from lactic acid milk is due to the chemical changes produced by acidifying the milk."

2. The Difficulty of Early Diagnosis of Tuberculosis in Infancy and Childhood.

Guy L. Bliss, M. D., Kalamazoo.

Abstract: "Regular routine examination urged of clinical history, temperature, sensitiveness, weight, fatigue, rales, spinal dullness, cough, tubercular reaction and X-Ray. These are important when considered as a whole, but of every little value if considered individually. Active tuberculosis is a relative thing. Acquiring tuberculous immunity a prerequisite to adult life."

Discussed by Frederick J. Larned, M. D., Grand Rapids.

3. Chronic Non-Tuberculous Bronchial Gland Infections.

Thomas B. Cooley, M. D., Detroit.

Abstract: "Case reports and lantern slides illustrating a condition not uncommon in children, and causing various degrees of impaired health, from obstinate recurrent cough to a condition closely simulating tuberculosis."

"Discussion of etiological factors—pertussis, tonsil and adenoid infections, etc.—relation to certain types of asthma, and treatment; medicinal, vaccine, and climatic."

Discussed by D. J. Levy, M. D., Detroit.

4. Otitis Media in Infants.

L. Fernald Foster, M. D., Bay City.

Discussed by R. M. Kempton, M. D., Saginaw.

5. Acetonemia.

John P. Parsons, M. D., Ann Arbor.

Abstract: "The clinical picture differentiated from acidosis and alkalosis. Signs of acetonemia may serve as a warning and therapeutic indication before typical symptoms of intoxication have developed. Treatment. Report on some animal experiments."

THIRD SESSION

Friday Afternoon, June 9

Election of Chairman.

1. Treatment of Alimentary Intoxication With Report of Cases.

Earl May, M. D., Detroit.

2. The Feeding Method Used in the Department of Pediatrics, University of Michigan Hospital.

D. Murray Cowie, Ann Arbor.

Abstract: "This paper deals with the method used in the feeding of normal infants."

3. Some Principles in Infant Feeding.

Raymond Hoobler, M. D., Detroit.

Discussant: J. C. Montgomery, M. D., Detroit.

4. Fever and Body Fluid.

Rockwell Kempton, M. D., Saginaw.

Abstract: "The body a water cooled machine. Review of experimental work by Woodyatt et al on 'Fever and Water Reserve.' In health the circulating free water absorbs excess heat from the organs and carries it to the surface for evaporation. In disease, tissues bind water, thus decreasing amount of water available for the cooling process. Clinical cases from literature and personal observations supporting above hypothesis."

5. The Methods Used in the Care of Pyloric Stenosis and Pseudostenosis in the Department of Pediatrics, University of Michigan Hospital.

Lynne A. Hoag, M. D., Ann Arbor.

Abstract: "It is probable that every case of pyloric stenosis has a superimposed spasm or pseudo-stenosis. The latter may occur alone. Treatment directed toward the gastric hyperacidity, which frequently accompanies the stenosis, together with the relief of the vagus hyperirritability by the use of atropine, makes the non-surgical treatment of these cases effective."

SECTION ON SURGERY

Chairman—W. F. Martin, M. D., Battle Creek.

Secretary—N. M. Allen, M. D., Detroit.

FIRST SESSION

June 8, 1:15 to 4 P. M.

Medical and Surgical Session.

Symposium: Hyperthyroidism.

(See Medical Section Program.)

SECOND SESSION

June 9, 9 A. M.

1. Value of New Short Wave in the X-Ray Treatment of Cancer.

J. T. Case, M. D., Battle Creek.

2. Radium Treatment in Cancer of the Cervix.

C. D. Brooks, M. D., Detroit.

3. Carcinoma of the Breast, Its Combined Treatment, Surgery and X-Ray Treatment.

William Cassidy, M. D., Detroit.

4. Cancer Problems.

H. C. Saltzstein, M. D., Detroit.
 Discussion by P. M. Hickey, M. D., Detroit;
 R. E. Loucks, M. D., Detroit;
 R. R. Smith, M. D., Grand Rapids;
 Reuben Peterson, Ann Arbor.

THIRD SESSION

June 9, 1:30 P. M.

Election of Chairman and Secretary.

1. Nitrous Oxide in Major Surgery.

Alex. W. Blain, M. D., Detroit.
 Discussion by Myra E. Babcock, M. D.,
 Detroit;
 W. T. Shannon, M. D., Detroit;
 E. O. Sage, M. D., Detroit.

2. Symposium: Cortical Infections of the Kidney.

Fred H. Cole, M. D., Detroit, and N. F. McClinton, M. D., Saginaw.
 Discussion by Hugh Cabot, M. D., Ann
 Arbor;
 H. W. Plaggemeyer, M. D., Detroit;
 F. W. Robbins, M. D., Detroit.

3. Preparatory Treatment of Patients for Operations on the Gastro-Intestinal Tract.

O. H. Hart, M. D., St. Johns.
 Discussion by Alex. W. Blain, M. D.,
 Detroit;
 H. E. Randall, M. D., Flint;
 B. M. Davey, M. D., Lansing.

4. Deformities of the Feet in Relation to Posture.

Byron Monkman, M. D., Detroit.

5. Selection of Cases for Arthrodesis and Arthroplasty and Their Relative Value.

Paul B. Magnuson, M. D., Chicago, Ill.
 Discussion by F. C. Kidner, M. D., Detroit;
 A. D. LaFerte, M. D., Detroit;
 William E. Blodgett, M. D., Detroit.

COUNTY SECRETARIES' MEETING

County Secretaries are invited to meet with the Council at lunch at noon on June 9th.

Dr. Olin West, Field Secretary of the American Medical Association will address us.

Every County Secretary is urged to attend this meeting. When you register tell the clerk you are a County Secretary, and she will advise you in what room in the Hotel Durant the luncheon will be held. This luncheon is tendered to you by the Council. Every Secretary should be in attendance.

ENTERTAINMENT

Wednesday evening, June 7th—In the ballroom, Hotel Durant, 9 P. M. Smoker given by the Genesee County Medical Society. Music and special entertainment features.

Thursday evening, June 8th, 9 P. M.—President's ball. Informal. Specialties.

Free tickets will be issued to the entertainment features of the Lakeside and Flint Parks.

LADIES' ENTERTAINMENT

Wednesday evening, June 7th, 8 P. M.—Informal reception in Parlors A and B, mezzanine floor, Hotel Durant.

Thursday, June 8th, 12:30 P. M.—Bridge luncheon at Flint Country Club. Automobiles at side entrance Hotel Durant.

Thursday, June 8th, 9 P. M.—President's informal ball. Hotel Durant.

Friday, June 9th, 10 A. M. sharp—Automobile

ride and visit to city water works. Automobiles at side entrance of Hotel Durant, Detroit Street.

GOLF TOURNAMENT

First Day, Wednesday, June 7

The Entertainment Committee have decided to begin their program with an eighteen-hole golf match starting at 1:30 P. M., eastern standard time, Wednesday, June 7th. This will be a medal score affair on your club handicap basis. Following this golf match, there will be a golfers' dinner, at the Country Club, at 6 P. M., where steps will be taken to make these golf meets a regular annual affair. Please send your name and club handicap as soon as convenient to Dr. W. G. Bird, 510 F. P. Smith Building, Flint, Michigan, in order that we may know how many players may be expected.

DIAGNOSTIC VALUE OF DETERMINING VITAL CAPACITY OF LUNGS OF CHILDREN

The accumulating evidence which shows the clinical importance of determining the vital capacity would indicate that the spirometer may well be added to the increasing armamentarium of instruments of precision in clinical medicine. Before the determination of vital capacity can be of any practical clinical value, it is essential to have available for the clinician: (1) a standardized method and technic which is not time consuming, and as simple as accuracy permits; (2) an accurate normal standard indicating the normal range, and (3) the evaluation of the various factors which may be expected to influence vital capacity measurement. An investigation was undertaken by May G. Wilson and Dayton J. Edwards, New York (Journal A. M. A., April 15, 1922), with these objects in view. A simple method and technic was adopted for the determination of vital capacity in children from 6 to 16 years of age. A normal standard of 1.93 liters per square meter of surface area, allowing a plus or minus 10 per cent deviation (giving a normal range of from 1.74 to 2.12 liters), has been established from a study of a representative group of 362 children. An analysis of some of the factors expected to influence the vital capacity measurement has revealed that: (a) Boys show a vital capacity 6 per cent greater than girls. (b) Extremes of age give values at the lower and higher limits of the normal range established. (c) The colored race shows a definite lowered vital capacity. (d) Poverty, environment and social status do not seem appreciably to influence the lung capacity. (e) Activity and athletics tend to increase the vital capacity. (f) Malnutrition and underweight tend to increase the vital capacity. (g) Overweight for height reveals an apparent reduction of vital capacity per square meter of surface area. (h) Vital capacity measurement is a fairly constant measurement. (i) A reduction of vital capacity measurement of 15 per cent or more from the average normal standard should signal the child out for further physical and roentgenographic examination.

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

W. T. Dodge, Chairman **Big Rapids**
 A. L. Seeley **Mayville**
 J. M. McClurg **Bay City**

Editor and Business Manager

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JUNE, 1922

Editorials

THE ANNUAL MEETING

In our May issue we published the preliminary program for our 57th Annual Meeting. This issue contains the completed program. Your attention is invited to its many interesting and instructive features. The Section officers are to be congratulated upon their securing such diversified, yet timely, subjects that will be discussed by many able men. The list of invited guests who will present papers are indeed noteworthy. The addresses at two of the General Meetings are bound to be of interest to every member. It is a scientific program that excels in every respect those of the last two years.

HOUSE OF DELEGATES

Delegates from component county societies are reminded that the first session of the House of Delegates will be held on Tuesday afternoon at two o'clock. This is a special session that is being held for the purpose of adopting a new constitution and by-laws. It is extremely important that every delegate be present at this session. The second session will be held at 7:30 P. M. You are not meeting the

confidence bestowed in you by your local society if you fail to attend these two sessions.

ENTERTAINMENT

The profession of Flint has prepared agreeable entertainment features. Their reputation for hospitality is well known. They are more than eager to cause your sojourn in Flint to be a memorable one. We are certain that you will be more than pleased with the reception that awaits you.

ARE YOU GOING?

Of course you are, for there is no valid reason why you should not attend this meeting. You can still obtain suitable hotel accommodations by writing to the Secretary of the Genesee County Society. Flint has more than ample accommodations. Plan your engagements accordingly and do not permit yourself to forego this meeting.

MICHIGAN STATE BOARD OF REGISTRATION IN MEDICINE

Outline of basic principles involved in the term "standardized hospitals" in their relation to the training of internes:

First. No hospital has an inherent right to the service of an interne.

Second. The rights of the public are paramount to the interests of any individual hospital or any individual community.

Third. The consideration of the interests of the medical profession as a profession are subordinate to the desired result in the training of an interne, viz., as nearly as possible perfect treatment of the patients and the proper education of the future practitioner.

Fourth. That the quality of educational service given to an interne is a perfect index of the quality of the service furnished to the public.

Fifth. A minimum approved hospital service divided into four divisions, i. e., the medical, the surgical, the obstetrical, and the laboratories.

Sixth. The members of the hospital staff must have not only the qualifications for successful practice, but the additional qualification of being able to properly and efficiently teach internes, and to give the necessary service and time in connection therewith.

Note: In the past internes have in many instances in their service in hospitals acted as assistant physicians and surgeons, rather than as post graduate students. They could have obtained the same experience that they received in the hospitals in private practice with the added advantages of initiative and self-reliance in such practice. All hospitals who can not reasonably meet the above fundamental require-

ments of hospital standardization can not hope to obtain recognition from state or national bodies.

GENERAL STATEMENT

The Michigan Medical Act provides that certain stated subjects entering into medical education shall be taught in recognized medical colleges in accordance with the standard of medical education set by the Board. The detail of such standard is set forth in the authorized published schedule of studies issued by the Board. The hospital interne year is a continuation of the prior four-year medical course in a medical college and in nowise differs from it, except that it provides for the practical application of the knowledge of the science and practice of medicine acquired in the strictly college course in an accredited hospital. The term "medicine" is a legal term, and involves all departments and divisions of medical science and practice. Therefore, all of the subjects in their relation to medical practice must also be taught practically in the continued medical course in hospitals. The law does not provide for undue emphasis of divisions of medicine. All subjects listed in the act must be taught in their relation to one another.

The Board has no authority to authorize so-called specialties in medicine in the college or hospital courses. Its authority is confined to the registration or licensing of physicians for the general practice of medicine. The Board's policy heretofore has been to register or license practitioners whose qualifications will admit them to medical license in every state of the Union. This policy will be continued in the future. An interne hospital service in which a specialty in medicine is unduly emphasized will result in the non-recognition of licentiates for practice in the better states.

The Board's aim is to give to every licentiate a standard qualification (100 per cent) under the law, which aim will be defeated if recognition is given to a hospital internship other than that provided by a rotary service.

G. L. LEFEVRE, President.
B. D. HARISON, Secretary.

THE MICHIGAN MEDICAL ACTS

The merit and effectiveness of the Michigan Medical Acts, past and present, is apparently recognized by the editorial department of the Bulletin of the Federation of State Medical Boards of the United States. The following is taken from the April, 1922 issue of the above publication:

In the evolution of medical practice acts and examining boards, the two functions—executive and legislative—have largely determined the effectiveness of state board activities.

Where the medical laws are so framed as to allow the board to maintain its own initiative in meeting new requirements as they arise, it has meant more for medical progress than where every step in advance was dependent on new legislative action.

It is gratifying to note that a certain elasticity is being exercised by boards in the enforcement of state requirements. In this connection, mention should be made of the interesting departure of the Minnesota Board in accepting graduate work as a licensure substitute for deficiency in premedical requirements.

Members of examining boards will do well to study the interesting review of Michigan medical acts by Harison in last month's Bulletin. It is very evident that the authority of the Michigan Board has been maintained to set standards, not only as to detail of preliminary and medical education, and the recognition of medical schools, but also the control of licensure examinations and reciprocity agreements, making it possible for the board to meet national and state educational standards as they developed during the past thirty years. Michigan claims the distinction of establishing the first professional reciprocal indorsement made in the United States, through its agreement with Wisconsin in 1902.

The Michigan practice act has been held constitutional by the State Supreme Court, as well as the Supreme Court of the United States, which has been of great aid in all legal procedures pertaining to infringement of the act. The effective results obtained by the Michigan Board, as published frequently in the Bulletin, in the prosecution of irregular practitioners reflects credit on the executive officers of this board.

JOINT COMMITTEE ON PUBLIC EDUCATION

The following statement is made for the information of our members. It is advanced so that there will be no basis for criticism or the passing of "snap judgment."

1. The Committee has held a number of meetings and has been intensely concerned that its development of the plan for the education of the public in regard to medical practice, disease and disease prevention would be established on a basis that is sound in principle and practice. The Committee is studiously seeking to secure an open reception of its work by the public and is endeavoring to forestall charges of ulterior motives.

2. The original committee extended invitations to co-operate to the State Dental Society, the State Department of Health, and the Detroit College of Medicine and Surgery. They were

accepted and representatives of these agencies are working with the Committee.

3. In the judgment of the Committee it was deemed wise to select a preliminary list of speakers and topics to fulfill requests for meetings that were coming in, in increasing number. This was done by picking from a list of speakers nominated by the County Societies, Department of Public Health and the University, fifty names and topics. This was done. It was further decided to issue a special number of the University Bulletin imparting the object of the movement, plan of conduct, preliminary list of speakers and topics and how engagements might be made. This Bulletin has been published and given statewide distribution.

4. County Societies were requested to submit nominations of members who would be willing to accept engagements to address lay audiences. These nominations and their topics are now being considered by the Committee.

5. The regular bulletin of the Extension Bureau of the University is issued in the late summer months. The Committee hopes to, in fact will, complete its selection of speakers and topics and that completed list will be published in the regular issue of the Bulletin.

Our members may be assured that the final corps of speakers will consist of a majority of our members representing every county in the state. The preliminary list should not be construed as representing the only speakers who will represent and present to the public that which we seek to accomplish.

RADIOLOGICAL ETHICS

The following communication from the Wayne County Ethics Committee was in response to a series of questions propounded to them by a well known Roentgenologist of Detroit. In a verbal communication he stated that very frequently matters of an ethical nature concerning the relationship of the Roentgenologist to the referring physician or surgeon came up for sharp discussion and often caused sharp dissidence among the physicians concerned. In order to clarify the situation he propounded a series of questions which follow and are accompanied by the answers of the Ethics Committee to the points under consideration:

"April 27, 1922.

Dear Doctor:

The Ethics Committee of the Wayne County Medical Society met on the 26th inst. and spent one and a half hours in discussing your problems from all angles. The Committee felt that the subjects presented by you for their consideration were so important and were of such a basic character, it was necessary to give them the fullest debate and most careful deliberation.

After this period of discussion and consideration, the following conclusions were arrived at:

Your questions were put in numerical and categorical form, and will be answered in the same way.

(1) Suppose Dr. A refers a case to me, say for a supposed fracture of the pelvis, and during the time that I am studying the plates, Dr. B comes to me and asks me if the plates are of patient X, and I inform him that they are and also inform him of my interpretation. Then he informs me that he (Dr. B) is taking charge of the case. Was I unethical in giving him a report which was verbal? Should I have spoken to Dr. A first?

The Committee would answer this "NO," but would add the following suggestions:

That, in their opinion, marked freedom with broad discretionary powers on the part of all X-Ray men in imparting information is advised; first, because of the possibility of legal involvements; and, second, because of the necessity of maintaining friendly relations with the men who refer their work to them. The Committee feels that courtesy should be mixed with firmness, and discretion and reserve with judicial freedom of action.

(2) If Dr. B was working for an insurance company or for an industrial concern, can I show him the X-Ray plates with my findings?

The answer to this query by the Committee is "YES."

(3) If I made an X-Ray examination of the gastro-intestinal tract of patient "X" and the patient a week after the examination decides to change from Dr. A to Dr. B, can I give Dr. B my findings and still be considered ethical?

This is again answered by the Committee, "YES."

In amplification of these last two answers the Committee desires to add that they have searched the current literature for authorities on these matters, and have likewise consulted with other X-Ray men in the city in regard to the customs among Roentgenologists governing practices such as you discuss. They have concluded that an X-Ray man receives compensation, not for the act of taking the picture, but largely for the opinion he renders, based on information derived from the pictures. Viewed in this light, your opinion might be given to any reputable physician interested in the case, just the same as an opinion is given by the ordinary bedside consultant, having always in view, however, the necessary courtesy to the physician who first referred the case to you.

From the fact that the welfare of our patients, be it economic or otherwise, should be uppermost in our minds, all just men should readily agree with the Ethics Committee that

any instance in which a patient is compelled to pay a double fee for information simply on account of a change of physicians, is one fraught with great danger to the Roentgenologist, and to the medical man involved in the case, and means an over-charge and consequent injustice to the patient. The Committee has always in mind the feeling that in the relations of physicians to each other, as well to the great public from which the profession draws its livelihood, the golden rule should inexorably apply: 'As ye would that men should do to you, do ye even so to them.'

Since writing these conclusions the committee has received additional information which may be of interest to the profession generally as bearing upon the ownership of records and particularly X-Ray plates in the possession of hospitals.

A communication from Dr. W. L. Babcock, Medical Superintendent of Grace Hospital, Detroit, yields the following information: A request to the Corporation Counsel in regard to the legal right of hospitals to retain all records, including laboratory findings and X-Ray plates in all cases was secured. According to this authority the hospital has the sole right in all such records, documents, and photographs, whether secured in connection with a private pay patient or a charity patient. This applies as we have before stated in this connection to X-Ray plates and X-Ray prints, and is an ethical and legal point of considerable interest in connection with the status and relationship to Roentgenologists.

The Committee trusts that the discussion of these questions, and the conclusions drawn therefrom, will be of value to you in standardizing your ideas and work and will answer moreover categorically the questions upon which you have asked for a decision.

WILLIAM M. DONALD, Chairman,
WILLIAM P. WOODWORTH, Secretary.
Committee of Ethics, Wayne County
Medical Society.

May 1, 1922."

Endorsed and recommended for publication by the Council of the Wayne County Medical Society. Bruce C. Lockwood, M. D., Secretary.

Editorial Comments

This is the month—June, and the days, 7, 8 and 9, for our annual meeting. Have you planned to go? If not, do so now for it will be a most profitable meeting. The Doctors of Flint are urging that you accept their invitation to be their guests. See the program in this issue.

Your attention is directed to the professional announcements that appear in our advertising section. We believe they are of interest and val-

able for reference by our members. We are desirous of extending its scope. If this directory can be of service and use to you we request that you fill out the order blank that you will find on the last of the announcement page and send it in together with your copy for publication in our next issue. By so doing you will also be aiding in defraying the publication expense of The Journal and thereby permit us to send you a larger and better Journal.

Our State Board of Registration in Medicine, some four years ago, adopted the requirement that to secure a Michigan license the candidate must have served a year of rotating internship in an acceptable hospital. That rule went into effect this year. Its application is causing some concern in certain hospitals that accept internes for a given service and require that they spend all their time in that service. We believe such practice to be harmful to the welfare of the profession and the public. The Board and the public is concerned in the providing of all around, well trained graduates. It is not concerned with the training of a man and his receiving practical work in only one branch of medicine. What we need is more general doctors and fewer specialists. We hope that our Board will not be induced to alter the rule that was adopted four years ago.

China at one time sought to safeguard its people and nation from outside encroachments and build a wall about itself. India sought to attain similar protection from the inroads of other people and established the caste system. We all know where these nations stand today in the civilized world. We are not at all envious of their position and their state of civilization. No individual, group, state or nation can isolate itself and progress. Neither can medicine hope to progress in the eyes of the public if it seeks to surround itself by a wall or caste. It must come out from behind the curtain of reserve and acquaint the public with its potentialities. You as an individual doctor and as a member of your county society have a definite work to perform to accomplish the imparting of our principles and practices to the public of your community. Are you playing your part?

You can still secure accommodations at Flint for our Annual Meeting. Write for them today. The splendid program, published in this issue, presents ample reasons why you should attend.

"Shooting a serum, or, Vaccine" for every imaginable ill or as a preventive for every possible ill and giving X-ray treatments at \$50 per course to produce sterility is commercializing the practice of medicine. It is practices such as these that lower the standard of the profession. Such practice and practitioners should be ostracized.

During the year that the 67th Congress has been in session, the subject of tuberculosis has been before it a number of times. On April 12, 1921, the day after the special session convened, Sen. Ashurst introduced a bill (S. 398) to provide federal aid in caring for indigent tuberculous persons. The bill was referred to the committee on Interstate Commerce, where it still is. On June 6, 1921, Sen. Sheppard introduced a bill (S. 1971) to admit civil employes of the government stricken with tuberculosis to government hospitals. A similar bill was introduced in the house on Oct. 28, 1921, by Mr. Hudspeth. No action has been

taken on either bill. A resolution of the National Tuberculosis Association concerning the rehabilitation of tuberculous ex-service men was printed on the first page of the Congressional Record of June 24, 1921.

The act creating the U. S. Veterans' Bureau, signed by the president on August 9, 1921, aside from important hospital provisions, amended the War Risk Insurance Act with reference to tuberculosis:

"An ex-service man who is shown to have an active pulmonary tuberculosis or neuropsychiatric disease (of more than 10 per centum degree of disability in accordance with the provisions of subdivision (2) of section 302 of the War Risk Insurance Act, as amended) developing within two years after separation from the active military or naval service of the United States shall be considered to have acquired his disability in such service, or to have suffered an aggravation of a pre-existing pulmonary tuberculosis or neuropsychiatric disease in such service, but nothing in this proviso shall be construed to prevent a claimant from receiving the benefits of compensation and medical care and treatment for a disability due to these diseases of more than 10 per centum degree (in accordance with the provisions of subdivision (2) of section 302 of the War Risk Insurance Act, as amended) at a date more than two years after separation from such service, if the facts of the case substantiate his claim. This section shall be deemed to be in effect as of April 6, 1917."

Other matters before congress of special interest to tuberculosis workers include an appropriation in the Agricultural appropriation bill (year ending June 30, 1923) of \$2,877,600 for the eradication of tuberculosis in animals; a bill (S. 3278) to provide a school in the District of Columbia for "tubercular" pupils, and finally, the bill (H. R. 10864) appropriating \$17,000,000 for increased hospital facilities for veterans, which went to the president on April 20, 1922.

Granted that preventive measures and examinations are within the province of health boards, commissions and officers. It does not follow that they should engage in the treatment of individuals. The reason given to justify treatment is that doctors are either too ignorant to institute treatment, or they are negligent, or, are unwilling to supervise treatment. Especially are these reasons advanced in regard to venereal diseases and especially syphilis. We are interested in this state of affairs and invite a discussion of the actual situation. What is your opinion?

PROGRESS UNDER THE FEDERAL MATERNITY AND INFANCY ACT

The first meeting of the Federal Board of Maternity and Infant Hygiene as provided by the act for the Promotion of the Welfare and Hygiene of Maternity and Infancy, which became a law on Nov. 23, 1921, was held on April 18, 1922. Miss Grace Abbott, Chief of the Children's Bureau, was elected chairman of the board. The other members are Surgeon General H. S. Cumming of the Public Health Service and John J. Tigert, U. S. Commissioner of Education. The board approved the final plans of the following 23 states for the use of the funds available under the act:

Alabama, Arizona, Arkansas, Connecticut, Dela-

ware, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Mississippi, Missouri, Montana, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Virginia, Wyoming.

Forty-one states have now accepted the terms of the Maternity and Infancy Law, either by legislative act or by proclamation of the governor in the absence of a legislative session. \$490,000 was appropriated by congress for the fiscal year ending June 30, 1922. For the year ending June 30 1923, the full \$1,240,000 is available. (See statement No. 16, page 3, for report on the Maternity and Infancy Act).

Sodium iodide in two grain doses, given once a day for a period of 12 days in the fall and spring of the year has been demonstrated to be a most potent preventive of goitre.

Some "Uplifters" in Ohio have been proposing a five years' course of training for nurses and upon completion of such course to grant them some collegiate degree. What we are wondering is why they wish to limit the course to five years. Why not make it an indefinite and continuous course and keep such students continually studying for they will be of no use and service in caring for the sick after five years of schooling. Of course they might be listed by some matrimonial agency and thereby be saved from a totally wasted life.

If you are getting nothing out of your society membership it is because you are putting nothing in it. The first thing you have to contribute is time to attend your meetings. Secondly, participate in the discussions of each meeting and inspire others to do likewise. Third, present some constructive plan and then get busy and put it across. If you do this you will soon perceive other avenues of activity and the while you will be progressively receiving greater benefits from your membership.

This issue was sent to press at an earlier date than is customary in order that it may reach our members before our annual meeting. We have therefore been compelled to omit some of the copy that was sent in too late to catch this issue. Such copy will appear in our next issue.

We wish to call attention to an editorial appearing in the February-March, 1922 issue of the Bulletin of the Detroit Department of Health. It states what has been done and what will be attempted to eradicate diphtheria from the school children in Detroit.

Last year in Detroit there were 4,689 cases of diphtheria which resulted in 334 deaths. The responsibility for this death rate rests in part with those parents who scoff at medical science and those who attempt to treat cases of sore throat with home remedies. Diphtheria is the one infectious diseases for which we possess a laboratory method of diagnosis, a means for demonstrating susceptibility, a reliable preventive and a specific remedy.

From 30 to 70 per cent of children from 1 to 10 years of age are susceptible to diphtheria. By the injection of toxin-antitoxin once a week for three weeks, the body is safeguarded against diphtheria. The actual eradication of diphtheria will only come by universal use of toxin-antitoxin in all children who are shown by the Schick test to be non-immune to the disease. The Detroit De-

partment of Health is now doing Schick test work and immunizing children of the kindergarten and first grade, the consent of the parents being first obtained in each case. From January 1 to February 10, in 63 schools, the three injections were given to 2,029 children. With the continuation of this work and the increasing cooperation of the parents, the department looks forward to the time when diphtheria will become an obsolete disease.

During the past year some 15,000 bills have been introduced in congress. In the first session 81 house bills and 66 senate bills were enacted. In the second session 60 house bills were passed and 28 senate bills are now laws. Of this number only a half dozen or so have been concerned with public health. They include the Maternity and Infancy Act, Veterans' bureau, Prohibition, Social Hygiene. Of the 15,000 bills, 189 have some relation to public health. Included in these are a bill for Physical Education, a Department of Public Welfare, re-organization of the Public Health Service.

Thirty-six states have adopted the Maternity bill and accepted the terms of that act. The congressional appropriations for this act now reaches \$1,551,000.

Our members should be able to perceive from this brief statement legislative tendency to health legislation. Are you still willing to sit in your office and manifest no interest in the subject? Are you content to let "George do it" and when he attempts to arouse some activity, cuss him for it? Think it over!!

OBSERVATIONS ON PLEURISY AS A FREQUENT ACCOMPANIMENT OF SIMPLE ACUTE CATARRHAL BRONCHITIS*

HARRY B. SCHMIDT, M. D.

DETROIT, MICH.

The material for this paper is based upon the case records of 41 patients, seen in the past eight years in private practice, or, in the wards and out-patient departments of various hospitals, who were found to have at the time of observation pleural friction. Ninety per cent of the patients were males between the ages of 18 and 30 years. All complained of acute illness, the most common complaint being "a cold." They all suffered from cough and in most instances the cough at first was dry and unproductive, but later mucous was expectorated and finally pus. All but four had fever at some time during their illness. The diagnosis of acute simple catarrhal bronchitis was made from the symptoms, and upon the absence of physical signs in the lungs, and in addition because of the short duration and the mildness of the attack.

At the beginning of their illness 21 patients had vague indefinite pains over different parts of the chest, but later many of them gave a very definite history of pleural pain on deep breathing or upon coughing.

Of the four females the youngest, a girl of seven years, had severe pain in the upper right abdomen, and for a time this patient was thought to have an acute abdominal condition. While a blood count was being made she developed severe pain

in the right neck and the right shoulder. As you know, the diaphragm receives its sensory nerve supply from two sources, the peripheral portion from the intercostal nerves, so that inflammation of the outer portion of the diaphragm can produce reflex pain in the upper part of the abdomen because of the relationship of these intercostal nerves to the peritoneum and the pleural. On the other hand the central portion of the diaphragm receives its sensory nerve supply through the phrenic nerve, from the cervical nerves which supply the shoulder and neck, hence the pain in the latter region when the central portion of the diaphragm is inflamed. Dr. Capps has proven this clinically in patients who have been operated on for empyema.⁽¹⁾ By irritating the pleura in the central portion over the diaphragm Dr. Capps could produce pain in the shoulder and neck of his patients. His experiments have proven to be of real practical value from the standpoint of diagnosis, because of the fact that many patients in the past have been operated upon for what was thought at the time to be an acute abdominal condition, but which later proved to be either diaphragmatic pleurisy or beginning pneumonia.

On examination very few physical signs were found, a slight diminution of the resonances and varying degrees of impairment of the mobility at the base of the lungs. Percussion gave little information of value. The diagnosis of pleurisy was based upon leathery friction rubs heard for the most part either in the axillae, or in the front of the chest at the level of the fifth and sixth ribs on one side or the other. The friction sounds were heard best over the chest where the movement was greatest, and generally speaking, the sounds were heard over the regions in which pains were complained of by the patients. Friction was also heard bilaterally in five patients and in two of these the signs were such as to warrant an exploratory puncture from which 2 c. c. and 12 c. c. of clear yellow fluid were found respectively. Subsequent culture of this fluid proved negative for organisms.

Of the 41 patients eleven had X-ray examinations of their chests. The plates were negative for evidence of tuberculosis and pneumonia, or for fluid. Unfortunately the two patients who had some fluid were not examined by X-ray. I am of the opinion that small amounts of fluid could be found in a large percentage of these cases, even in the absence of physical signs, if one were of a mind to use paracentesis in such mild cases.

Signs of pneumonia were watched for with the greatest care, and where there was the least doubt such cases have been excluded from consideration. I had my attention called to the ambulatory form of pneumonia while I was in the out-patient department in the university hospital, where during one spring I saw a number of young students with little or no fever, yet with signs of a small area of consolidation at the base of one or the other lung. These patients had a dry cough and suffered from malaise. Similar cases have been described by Dr. David Riesman of Philadelphia.⁽²⁾

All of these patients made uneventful recoveries under the usual treatment with salicylates, counter irritation, and strapping.

I had seen several cases of acute rheumatic arthritis complicated by serous pleurisy and recently an autopsy revealed wide spread pleural adhesions without tubercular disease, in a patient who had had many attacks of rheumatic fever. It seems to me reasonable to assume that we may have an inflammation of the pleural attending a simple bronchitis without intermediate changes

*Read before the Wm. Osler Medical Society, Ann Arbor, Michigan, April 20, 1922.

in the air cells. Furthermore it must be granted that other organisms besides the tubercle bacillus can produce a serous or serofibrinous pleurisy. My contention is that they do more often than we suspect. Most text books claim that of the dry pleurisies, by far the vast majority are tubercular in origin. It would be easy to follow the line of least resistance and argue that such mild attacks of dry pleurisy were due to undemonstratable tuberculosis of the lungs. Patients who have tuberculous pleurisies are usually given a poor prognosis, because it has always been taught that a majority of them develop pulmonary tuberculosis in later life. Perhaps it is too early to make a definite statement in regard to the future of my patients. Nevertheless over half of these patients gave a negative reaction to tuberculin and I know a number of them to be well up to the present time, while three live in the city of Detroit, and have been under my observation for eight years. One of them recently passed through and completely recovered from an attack of severe pneumonia.

I am inclined to feel that these pleurisies are non-tubercular in origin. I know that from a pathological standpoint it is rare to find disease of the bronchial path without secondary and consequent pathological changes in the atria. We know that disease of the bronchial path may readily extend by contiguity to the air cells. But the anatomical relations existing between the blood supply to the bronchial tract and the pleura from the bronchial artery and the bronchial veins and the anatomical relations between the subpleural lymph spaces and the peribronchial lymph spaces are such that we may have an infection of the pleura coincident with bronchitis without involvement of the air cells.

I wish to emphasize here that in my experience the bacteriology of the respiratory passages has been extremely difficult to interpret. It is difficult to know with any certainty what organisms play a saprophytic role and what ones are responsible for the bronchial disease. All I know is that there were a number of organisms found in the sputum of these patients and that I was never satisfied as to which ones were responsible for the etiology in any given case. There were no tubercle bacilli found.

Bronchitis is the most common disease of the air passages and we all know that it frequently exists without any clinical signs of disease of the lungs. Why it is not complicated more frequently by pleurisy is a question I have been trying to determine. I feel that we would discover mild attacks of pleurisy in cases of simple bronchitis if we looked for it carefully in each case. To my mind the anatomical relations between the pleura and the bronchi certainly explains the chest pains associated with bronchitis, and very few patients with acute bronchitis are without some form of chest pain. The descriptions of the pains may be vague and indefinite, but they are very real as far as the patient is concerned. Whenever a patient presents himself to me with soreness or vague pains in the chest, I always look for pleural friction and I have been quite frequently surprised to find it in cases where it was little expected.

SUMMARY

To summarize, I have collected 41 cases of acute catarrhal bronchitis, complicated with different degrees of dry pleurisy, without any manifest disease of the lung tissue proper. The etiology could not be definitely determined in any

given case, but it is felt that the tubercle bacillus played no part in the etiology.

REFERENCES

1. Capps, Joseph. Trans. Association American Physicians, 1914.
2. Riesman, David. Amer. Jour. Med. Sciences, Vol. 146, 1913. Page 313.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer,** 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Position wanted—Harper Hospital Graduate, 1921, now taking P. G. work in office management and surgical technic, is open for position. Address 3380 Hudson Ave., Detroit, Mich.

Dr. Guy C. Conkle has been elected mayor of Boyne City.

The marriage of Dr. L. Sevey of Grand Rapids is reported.

Dr. James T. Davis left Detroit May 2, 1922 for a four months' trip abroad.

Dr. Stephen S. Skrzycki was recently appointed Health Officer of the city of Hamtramck.

Dr. George L. LeFevre of Muskegon has recovered from an infection of his hand.

A special sleeper carried some forty doctors from Grand Rapids to the St. Louis meeting of the A. M. A.

Dr. Wm. De Kleine, formerly health officer of Flint, has been appointed health officer of Saginaw, effective May 22.

Dr. and Mrs. Eugene Smith of Detroit recently announced the engagement of their daughter, Carolyn, to Mr. Ralf A. Crookston.

The Western Michigan Travel Club will hold its summer recreation meeting in Big Rapids as the guests of Drs. Dodge and Lynch.

The Detroit Society of Internal Medicine gave a dinner at the Detroit University Club May 8, 1922, to Dr. B. B. Vincent Lyon of Philadelphia.

Dr. P. F. Morse read a paper on "Clinical Value of Blood Chemical Examinations" before the Highland Park Physicians Club, April 6, 1922.

Dr. H. M. Rich of Detroit read a paper before the National Tuberculosis Association at its annual meeting held in Washington, D. C., May 4, 5, 6, 1922.

Examinations will be held by the Michigan State Board of Registration in Medicine in Ann Arbor June 13, 14, 15, 1922, and in Detroit, June 19, 20, 21, 1922.

Dr. W. P. Manton has recently presented the Wayne County Medical Society with 47 lantern

slides on cancer. It is hoped others will add to this collection.

The State Joint Committee on Public Health Education visited the offices and laboratories of the Department of Health during its meeting held in Lansing, May 9.

Florian Palmer and H. F. McKnight, both of Detroit (chiropractors), were convicted April 27, 1922, in Judge Keidan's court, of practicing medicine without a license.

Drs. W. P. Manton and W. H. Morley of Detroit attended the annual meeting of the American Society of Obstetrics and Gynecology, held in Washington, D. C., May 1922.

Dr. G. Van Amber Brown of Detroit announces the opening of the Woodward Avenue Clinic. His associates are Drs. Walter Wallace, H. B. Woods, B. R. Sunner and G. K. Ansurs.

Dr. Oscar Schloss, Professor of Pediatrics in the Harvard Medical School, read a paper on "Acidosis in Children" before the Wayne County Medical Society April 17, 1922.

Dr. Albert Wehenkel has been recently appointed Superintendent of the American Legion Hospital, Battle Creek, and Dr. Wilfred Haughey has been named Chief of Staff.

Dr. Howard P. Doub gave an illustrated lecture on "Diagnosis of Pathological Conditions of the Oesophagus by Means of the X-Ray," before the Detroit East Side Physicians Association, April 6, 1922.

At a hearing in the chiropractor bill before the New York legislature more than 1,000 persons are said to have appeared against the bill and only about 100 in favor of it. The bill died in the committee.

All narcotic prescriptions must be written in ink or in indelible pencil. Failure to comply with this regulation will subject the physician as well as the druggist to penalty under the Harrison Narcotic Law.

Dr. B. B. Vincent Lyon, Philadelphia, read a paper on "A Review of the Present Status of Non-Surgical Drainage of the Gall Tract, Its Rationale, Its Usefulness," before the Wayne County Medical Society, May 8, 1922.

Dr. Tappan of Holland has recovered from a severe attack of appendicitis, which at operation proved to be gangrenous. Upon discharge from the hospital he spent several weeks in the south and now has returned to practice.

In Wisconsin the Assistant Attorney General has advised the Secretary of the Board of Medical Examiners that chiropractors can not add "Dr." or "D. C." to their names while practicing in Wisconsin as it is in violation of the statutes.

Mr. W. A. Hall read a paper on "The Physiological Effects of Spirits of Nitrous Ether as Shown by Recent Experiments," before the Detroit

Medical Club April 20, 1922, and before the Detroit Academy of Medicine April 25, 1922.

The following Detroit physicians attended the meeting of the American Congress of Physicians and Surgeons held in Washington, D. C., May 1, 2, 3, 1922: Drs. J. W. Vaughan, C. G. Jennings, P. Morse, F. Kidner, E. Amberg, T. B. Cooley and H. M. Rich

Dr. A. W. Adson of the Mayo Clinic read a paper on "Surgery of the Pituitary Gland" before the Wayne County Medical Society May 1, 1922. The paper was illustrated with lantern slides. A dinner was given Dr. Adson in the Medical Building preceding the meeting.

A decision of the Ohio State Court of Appeals, which was approved by the State Supreme Court, ruled that chiropractors can not practice in Ohio unless licensed to do so by the Ohio State Medical Board. The United States Supreme Court has declined to review the decision.

Beginning the middle of April radio programs have been given in the auditorium of the Wayne County Medical Society for one and a half hours preceding the Monday night meetings. These concerts were possible through the courtesy of Mr. O. C. Bright, electrician of the Society.

The following Detroit physicians are members of the Birmingham Golf Club: Drs. F. E. Bowman, Harold Henderson, G. B. Hoops, W. J. Lovering, Nelson McLaughlin, G. C. McVoy, W. O. Merrill, W. H. Robinson, F. D. Royce and F. D. Scruton. Dr. W. H. Robinson is vice president and a member of the board of governors.

There are now two official branches of the Wayne County Medical Society, the Highland Park Branch and the West Side Branch. The East Side Physicians Association decided to remain an entirely separate organization. These two branches have each a member on the Council of the Wayne County Medical Society.

The Twelfth American Congress on Internal Medicine and Surgery met in Washington, D. C., May 1, 2, 3, 1922. This congress is composed of twelve scientific societies, each with a limited membership. Dr. and Mrs. V. C. Vaughan gave a reception and tea, April 30, 1922, to the Michigan physicians and their wives who attended the congress, at their home at Chevy Chase.

Dr. Schuyler C. Graves, formerly of Grand Rapids but now of California, spent May visiting his many Western Michigan friends. The doctor is in splendid health and though retired from practice, continues his interest in the profession. Many of our members throughout the state recall the enviable reputation he held as a surgeon.

Dr. Louis M. Warfield was appointed, April 28, 1922, Professor of Medicine in the University of Michigan. Dr. Warfield T. Longcope, formerly Band Professor of Medicine at Columbia University, was recently appointed Professor of Medicine in the Johns Hopkins Medical School. Drs. Warfield and Longcope were classmates in the Johns Hopkins Medical School, graduating in 1901.

A 1920 report from the Bureau of the Census

gives the following interesting figures in regard to those who are practicing the healing art: Physicians and surgeons in 1910, 151,132, and in 1920, 144,977; healers (other than osteopaths) in 1910, 6,834, and in 1920, 14,744. The number of physicians and surgeons is slightly less than a decade ago, while the number of healers has more than doubled.

The Henry Ford Hospital of Detroit opened May 1, 1922, 24 additional private rooms, with a total capacity on that date for 144 patients. It will open from time to time additional units of 24 rooms each. When all the wings are opened the hospital will have accommodations for 560 patients as follows: 144 beds for children, 48 private rooms for maternity cases, 13 semi-private rooms (accommodating 33 patients), and 335 private rooms for adults only.

The Detroit Homeopathic Society held its annual meeting May 6, 1922. Dr. Bruce Anderson was elected president; Dr. I. S. Morris, vice president, and Dr. B. H. Vollerson, secretary-treasurer. Preceding the meeting a testimonial banquet was given for Dr. D. A. MacLachlan. Dr. Frank Kelly was toastmaster. The out of town guests were Dr. R. S. Copeland of New York, Dr. J. C. Wood of Cleveland, and Drs. D. W. Meyers, H. M. Beebe and S. C. Runnells of Ann Arbor.

Drs. A. S. Warthin, Carl Weller and Frederick Novy read papers before the American Association of Pathologists and Bacteriologists; Drs. D. M. Cowrie and C. W. Edmunds read papers before the Association of American Physicians; Dr. Udo Wile read a paper before the American Dermatological Association. Besides these the following Ann Arbor physicians attended the May, 1922 meeting of the American Congress on Internal Medicine and Surgery: Drs. Hugh Cabot, Carl Camp, LeRoy Abbot, W. R. Parker and R. B. Canfield.

Through recent action of the State Administrative Board and the regents of the University of Michigan, Fairmount Hospital, Kalamazoo, has been designated as a university hospital clinic for juvenile gonorrhea cases. Indigent children suffering from gonorrhea can be sent to Fairmount Hospital for treatment at state expense.

When cases of this nature present themselves, they can be referred by you to the Judge of Probate of the county wherein the family resides, and their admission to Fairmount Hospital arranged by the Probate Court.

Butterworth Hospital, Grand Rapids, has for several years been conducting a monthly clinical conference to which physicians of surrounding localities are invited. The program as a rule consists of morning operative clinics and demonstrations. In the afternoon there are several ward walks and diagnoses of referred cases. Dinner is served. The evening program consists of papers and discussions. These meetings have been well attended, are extremely interesting and profitable and stimulate one to better scientific work. The staff is very appreciative of the co-operation accorded by visiting doctors.

Butterworth and St. Mary's Hospitals, Grand Rapids, held open house on Hospital Day. The many visitors were shown the equipment and

working methods of the hospital departments and clinics. The orthopedic, mental and out patient departments of Butterworth Hospital demonstrated the splendid services that were being rendered to the public.

St. Mary's Hospital rightly pointed with pride to its chest and heart clinic, out patient clinic, X-Ray and radium laboratories. The visitors expressed their appreciation of and interest in the work being done by these institutions.

The National Research Council announced recently the establishment of fellowships in medicine for the purpose of increasing the supply of thoroughly qualified teachers in medicine. The fellowships are supported by appropriations of the Rockefeller Foundation and the General Education Board. Those receiving awards will be known as fellows in medicine of the National Research Council. The fellowships will be administered by a special committee (the Medical Fellowship Board of the National Research Council). Correspondence concerning the fellowships should be addressed to the Division of Medical Sciences, National Research Council, Washington, D. C.

Dr. Noah Bates, who for more than 40 years has been connected with public health work in Flint, will not seek re-appointment to the city health board this year, according to an announcement made by him. He said that Mayor Wm. H. Keighan offered him re-appointment but that he refused because of his advanced years.

His many years of service in this community has seen health work advance here from its most primitive stages. Dr. Bates was prominent in this service when the present health department was first organized. He has been very happy to see the department expand and do more to relieve suffering and prevent disease.

Besides his public health work, Dr. Bates was a member of the state legislature in 1871 and at that time was the youngest member of the house. During his term Dr. C. B. Burr was a page in the house.

The Wayne County Medical Society gave a dinner April 28, 1922, in the auditorium of the Medical Building in honor of those physicians who graduated in medicine 40 or more years ago. Drs. O. S. Armstrong, Samuel Bell, J. M. Burgess, Willard Chaney, W. R. Chittick, J. E. Clark, D. O. Donovan, L. O. Geib, B. D. Harison, S. G. Jennings, Daniel LaFerte, L. E. Maire, S. G. Miner, Eugene Smith, W. C. Stevens and I. S. Townsend were present as the guests of honor. Letters of regret were received from Drs. Charles Douglas, J. E. Emerson, J. K. Gailey, J. T. Hornbrook, J. R. Jones, C. H. Leonard, A. B. Lyons, Oscar LeSeure, W. P. Manton, J. L. Shaffer and Joseph Schulte. Dr. H. W. Yates acted as toastmaster. The following physicians spoke after Dr. J. E. Davis, president of the Society gave a word of welcome: Drs. Daniel LaFerte, C. J. Jennings, Eugene Smith, Stanley Miner and J. E. Clark. Over 125 physicians attended the dinner.

Dr. Ray S. Dixon of Detroit will succeed Dr. William DeKleine as health officer of Flint. His appointment was confirmed by a unanimous vote of the city council.

Dr. Dixon will assume his duties after 20 days' residence here which is necessary under the city charter. In the meantime Dr. C. H. O'Neil was

appointed by Moyer McKeighan to fill the vacancy. Dr. Dixon will act in an advisory capacity, however, until he takes office

Dr. Dixon, who is a comparatively young man, has been connected with the Detroit health department for more than three years during which time he has been in charge of the field work in that city. He comes to Flint as the result of efforts of Dr. Olin, secretary of the state board of health.

Medical Society and the American Medical Association.

The deaths of the following doctors, not members of the Society, have been reported: John W. McNabb, R. H. Alexander, Marion Crane.

County Society News

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, April 26th, President Miner presiding. A committee was appointed to draw up a resolution of our appreciation of the services of Dr. Wm. DeKleine, who has recently resigned as Health Officer. Dr. Dixon, our new Health Officer, was introduced and spoke briefly, asking for the co-operation of the medical profession with his department.

Professor U. J. Wile then conducted a dermatological clinic and demonstrated many interesting cases in his usual skillful manner.

The Genesee County Medical Society met at noon luncheon on Wednesday, May 10th, President Miner presiding. Dr. J. W. Vaughan of Detroit spoke on "Blood Nitrogen Findings in Gastro-Intestinal and Renal Conditions." This laboratory aid has been used long enough for us to have some estimate of its real value. The work in this field has largely been done by American investigators. He analyzed a group of cases from his service in Harper Hospital and showed the help that was obtained from blood chemistry, both as to the selection of cases suitable for operation and as to prognosis. The genito-urinary cases included Urethral Obstruction, Hypertrophy of the Prostate, Pyonephrosis and Calculi. The gastro-intestinal cases studied were Intestinal Obstructions, Appendicitis, Strangulated Hernia and Intestinal Paresis.

This paper was highly scientific and will no doubt stimulate us to more careful work along this line.

W. H. MARSHALL,
Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale County Medical Society was held Tuesday, April 25th, the president, Dr. G. R. Hanke, in the chair.

After the reading of the minutes, Dr. W. H. Sawyer read a paper, "State Medicine," which was a fair and able review of the present day trend toward state control of the practice of medicine and compulsory health insurance. He pointed out the insidious nature of this propaganda and its fallacies.

The discussion was opened by Dr. Barnes and was followed by a general discussion.

The president then introduced Dr. C. W. Edmunds of the University of Michigan, who gave a very instructive and timely address, "The Relation of the General Practitioner to the Pharmacopoea." He pointed out the grave responsibility of those charged with the making up of the Pharmacopoea from time to time and the danger of physicians relying too much on the interested statements of drug houses and manufacturing chemists for their knowledge of the remedies they

Deaths

Doctor Arthur A. Metcalf was born in 1853 and died in Crystal Falls, Michigan, April, 1922. He graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1882. The doctor was a member of the Michigan State Medical Society and the Washington State Medical Association. He was also a druggist.

Doctor Frank R. Burdeno was born in 1874 and died in Sturgis, March 23, 1922, from septicemia and erysipelas. He graduated from the Detroit College of Medicine in 1907. He was a member of the Michigan State Medical Society.

Doctor Peter S. Mallard was born 33 years ago and died in Detroit February 2, 1922, from pneumonia. He graduated from Meharry Medical College in 1920.

Doctor Russell W. Brown was born in 1864 and died in Bay City April 3, 1922. He graduated from the Michigan College of Medicine and Surgery in 1889. He was a member of the Michigan State

use, instead of reliable and standard works on the subject.

Dr. Edmunds' address was followed with close attention and was followed by discussion by Dr. Miller, followed by Dr. Sawyer and general discussion.

Under the head of "Routine Business" it was moved and supported that the president be instructed to ask the prosecuting attorney of the county to enforce all sections of the Medical Practice laws of the state. Carried.

The question of a contribution to the Legislative and Educational Fund being presented and discussed, it was moved and supported that the question be laid on the table until the next meeting. Carried.

The society appointed the secretary as delegate to the State Medical Society with the president, Dr. Hanke, as alternate.

D. W. FENTON,
Secretary-Treasurer.

TUSCOLA COUNTY

Tuscola County Medical Society met at Caro, on April 12. Dr. Tupper of Bay City, Mich., read a very interesting paper on "Acute Abdomen." Paper was discussed by members of the Society. Dr. Garvin of Millington, Mich., reported a case of acute abdomen that was being operated on that day.

Doctors Garvin and Bishop invited the members to meet at Millington on May 11 and to be their guests at dinner. Invitation was accepted.

The Tuscola Medical Society met at Millington, on May 11. There was a good attendance and a fine dinner was served by Drs. Bishop and Garvin.

Dr. Beverich of Saginaw, presented to us two case reports with some interesting features. The first case was that of a cyst of the pancreas. The second case was of carcinoma of the calcium. Both cases were very fully discussed by members.

It was decided that we hold our annual picnic at Bay Port, Mich., on the third Thursday of June and that we have a fish supper inviting Sanilac County Medical Society to meet with us. The doctors' families were expected to come and have a good time.

H. A. BARBOUR,
Secretary.

Correspondence

The Editor of the Journal of the Michigan State Medical Society:

The position of Field Secretary of the American Medical Association has recently been created, with the hope that through the activities of such official resources of the Association might be made more readily available for service to its constituent associations and to their members. Having been assigned to this position by the Board of Trustees, I am desirous of obtaining suggestions that will help to determine just what I, as Field Secretary, can do to establish and maintain more intimate contact between the Association and its component units, and to extend the service of our national organization to its members generally.

As one means of advancing the interests of medical organization, there was established some years ago the American Medical Association Bulletin, in the editorship of which it is now my

privilege to be associated with Dr. A. R. Craig, Secretary of the Association. It is proposed to make this bulletin what it was originally intended to be, namely, an organization bulletin. Its columns are open to the members, and particularly to the officers of state and district medical societies and their component bodies for discussion of organizational and other subjects of general interest. It is hoped that the Bulletin may be made the medium for exchange of ideas between the officers of medical societies, presented for the purpose of promoting the cause of organized medicine, and that it may serve acceptably as a means of expression of opinion on matters pertaining to the welfare of the medical profession and to the general welfare.

It is my desire to be of real service and to do what I can to bring about a realization of the purposes of the Board of Trustees and other officers of the American Medical Association in creating the position of Field Secretary. Your suggestions as indicated above will be awaited with interest and will be sincerely appreciated.

With most cordial good wishes for you and for your society, I am

Very truly yours,

OLIN WEST,
Field Secretary,
American Medical Association.

WARNING

The Editor of the Journal of the Michigan State Medical Society:

A certain large publishing house in a large city in Illinois, has a very smooth book agent in the field who has "gypped" a large number of professional and business men in Muskegon.

Any book agent who comes to your office and states that he is going to give away a set of books to you because you are one of the representative men in your town—well, you had better "give him the gate" and you will save money.

Very truly yours,

CHAS. A. TEIFER.

The Editor of the Journal of the Michigan State Medical Society:

I have just had my attention called to the editorial in the April number of your state journal, "Some Facts Regarding the A. M. A." In the third paragraph the editorial says "The Lambert-Rosenau crime of 1916 is admitted by the Council on Health and Public Instruction. The Council admits that they employed Dr. Rosenau and sent him out on Council work, etc." I infer that you refer to Dr. I. B. Rubinow, and his employment by the Committee on Health Insurance.

I am sure you will be glad to know the facts on this point. Rubinow was never employed by the Council on Health and Public Instruction. The Committee on Health Insurance was a joint committee of the Council on Health and Public Instruction and the Judicial Council. Dr. Lambert, the chairman of the Judicial Council and of the joint committee, appeared before the Board of Trustees at the February meeting, 1916, and asked for a special appropriation for the committee for the purpose of employing a competent man to prepare abstracts, statistics and other material for the use of the committee in studying health insurance. He stated to the Board of Trustees that Rubinow would be the best man for this work. The Board of Trustees made a special appropriation for this purpose, which was not a part of the

appropriation of the Council on Health and Public Instruction. Dr. Rubinow was never employed by the Council, neither was he employed for the purpose of carrying on propaganda for health insurance. He was employed solely to prepare material for use of the special committee in studying the question. As soon as it was learned that Dr. Rubinow was representing himself as the "Executive Secretary" of the committee and was making public speeches in favor of health insurance, his connection with the committee was terminated. He was at no time employed by the Council on Health and Public Instruction in any capacity.

As you well state in your editorial, there has been a surprising amount of misstatement on some of these subjects, all of which are matters of record and on which the truth can easily be ascertained.

Very truly yours,

FREDERICK R. GREEN,
Secretary, Council on Health and Public
Instruction.

The Editor of the Journal of the Michigan State
Medical Society:

The Chairman of the State Institute Commission and the Superintendent of the Michigan School for the Deaf, Mr. I. B. Gilbert, extend the following invitation to the members of the Michigan State Medical Society to visit the Institution at Flint during your state meeting June 7th, 8th and 9th, and if you will kindly let the Superintendent know the day that you could visit the Institution and the number about, we would be glad to furnish them with luncheon.

Yours respectfully,

J. L. POLOZKER,
Acting Chairman,
David Whitney Building,
Detroit, Michigan.

I. B. GILBERT,
Superintendent.

Prof. W. D. Henderson, Extension Dept., University of Michigan, Ann Arbor, Mich.

My dear Mr. Henderson:

We want to take this occasion to thank you and the Extension Department for the splendid service rendered in getting us a speaker on such short notice.

I assure you that this service was appreciated by both clubs in Benton Harbor and Hartford.

I am enclosing a report on the lecture. I heard both talks myself, and he has a splendid message that can be given in practically any community, and the speaker seems to be able to meet the situation well, as he gave quite a different talk in Hartford, as compared with the one given in Benton Harbor.

Yours truly,

FRANK A. JENSEN,
Chairman Program Com.

The Editor of the Journal of the Michigan State
Medical Society:

I am very sorry to have to inform you that I will be absolutely unable to attend the meeting of the Michigan State Medical Society at Flint, Michigan, on June 8th. A matter of utmost importance over which I have absolutely no control has developed and makes my presence in Philadelphia imperative on June 8th. I am very sorry. I would have enjoyed being with you.

This is the year of Pasteur's centenary and I

feel that I would be happy to comply with your request to lecture on Pasteur on some future occasion during the current year.

Hoping you will quite understand the very unforeseen complication which arose only this morning and which I am hurrying to inform you, and with thanks for your courtesy, believe me

Very sincerely yours,

ERNEST LAPLACE,

The Editor of the Journal of the Michigan State
Medical Society:

During the annual meeting of the Michigan State Dental Society, the Society voted that the Michigan State Dental Society co-operate with the Joint Committee of the Michigan State Medical Society and the University of Michigan, in its campaign to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning matters of public and private health.

Also that the State Dental Society guarantees to defray the expenses of all dental speakers other than those from the University. (There is no University fund for the faculty speakers.)

Yours truly,

W. A. COOK.

Book Reviews

RADIUM THERAPY. Frank Edward Simpson, A. B., M. D., Professor of Dermatology, Chicago Polyclinic. Cloth, 390 pp., 166 original engravings. Price \$7.00. C. V. Mosby Co., St. Louis, Mo.

This is the most complete discussion of radium that we have seen. Radium has become almost a byword of the profession and laity. To it is attributed every degree of efficacy. Still in actuality many are ignorant as to what it really is, can and cannot do. Dr. Simpson has now presented us with a text that is of definite educational value. In addition to many splendid illustrations there is a very complete bibliography.

The chapters on the biological effects of radium is very complete and enlightening. Dosage, technique and indications are fully covered.

It is our opinion that this text should be in the hands of every medical man. He should be possessed of this information.

SURGICAL AND MECHANICAL TREATMENT OF PERIPHERAL NERVES. Byron Stookey, M. D., Associate in Neurology, Columbia University; Assistant Professor of Neurosurgery, New York Post-Graduate Medical School and Hospital. With a chapter on Nerve Degeneration and Regeneration by G. Carl Huber, M. D., Professor of Anatomy, University of Michigan. Octavo volume of 475 pages with 217 illustrations, 8 in colors and 20 charts. Philadelphia and London; W. B. Saunders Co., 1922. Cloth \$10 net.

The aim of this book has been to give principles and methods whose foundations are laid in embryology, anatomy, and physiology as well as in experimental work, and in clinical practice, and to advocate the use only of such procedures as have been shown by such criteria to be of value. It is not sufficient to be familiar with the gross

anatomy alone, for the microscopic anatomy must also be pictured. In peripheral nerve surgery it is, perhaps, this particular phase which is especially needed and has been too often wanting. The technic of nerve surgery is the more successful the nearer it approaches what might be termed histological surgery. Considerable attention has been given to the fallacies of certain practices in nerve surgery and it is hoped that these have been shown sufficiently to indicate their futility and to warrant the author's contention that they be discarded. Stress at times has been placed on the comparative anatomy and embryology, for only by an understanding of these can a broad conception of peripheral nerves and their surgery be gained.

The more general neurological aspects of peripheral nerves, including the various syndromes, motor, electrical and sensory have been so admirably treated by Tinel and Anasthasio-Benisty that no attempt has been made to parallel these excellent works; but rather to present the surgical and mechanical phases of peripheral nerves, barely treated by these authors. The motor changes in nerve injuries which underlie the various deformities are dealt with so that intelligent mechanical treatment may be undertaken. The importance of measures other than surgery has been emphasized for they are felt to be essential for a successful outcome of any purely surgical measure. Most of these principles the author was privileged to learn while temporary assistant during 1915-1916 to Sir Robert Jones, whose teachings it is agreed are so fundamentally sound. Nerve crossing in anterior poliomyelitis has not been dealt with since the author does not advocate its use.

I feel particularly honored to have the chapter on "Nerve Degeneration and Regeneration" written by Dr. G. Carl Huber, Professor of Anatomy, University of Michigan, whose brilliant researches in peripheral nerves in 1895 and since, have been epoch making. It was a distinct pleasure to have had the opportunity to work with him during part of his latter experimental work and to have gained from him an experimental basis for the study of peripheral nerves.

With such an outline of contents this text assumes a commanding position. It is bound to receive a cordial reception, which it deservedly merits.

THE PLACE OF VERSION IN OBSTETRICS. Irving W. Potter, M. D., F. A. C. S. Buffalo Cloth, 133 pp. Price \$5.00. C. V. Mosby Co., St. Louis, Mo.

Many have read the author's articles in medical journals on his methods of version and the indication for the same. We have also been impressed by the end results obtained by Dr. Potter.

In this text, which contains some 42 splendid illustrations, we are presented with a most valuable discussion. The author covers the subject in detail. Especial comment must be made upon

his clear, full description of the method he employs and how to overcome the difficulties that may be encountered.

On the whole this work certainly will be of instructing merit to every obstetrician. It is a distinct addition to our literature.

A MANUAL OF CLINICAL LABORATORY METHODS. Clyde L. Cummer, Ph. B., M. D., Assistant Professor of Pathology, Western Reserve Hospital. 136 engravings, 8 plates, 484 pages. Lea & Febiger, Philadelphia. Price \$5.50.

This manual is printed in a concise, accessible form, giving the indication and significance of the results of various tests. It covers the routine examinations, qualitative methods, quantitative methods and pertinent discussion of morbid conditions. Satisfactory references are imparted. The chapters on the blood and urine are exceptionally excellent. On the whole the text must command our indorsement and prove itself valuable to the scientific, practical doctor.

THE THYROID GLAND. Clinics of George W. Crile, M. D., and Associates at the Cleveland Clinic, Ohio. The Thyroid Gland. Octavo of 228 pages, with 106 illustrations. Philadelphia and London; W. B. Saunders Co., 1922. Cloth, \$5.00 net.

We welcome most eagerly the appearance of the Clinic Reports and discussions. We know the profession will profit most markedly by the study and observance of the principles and technic that will be set forth.

This first number on the Thyroid Gland is intensely valuable and interesting. It is a thorough discussion of the subject by Dr. Crile and his associates. It imparts the guiding factors that has caused this clinic to assume an enviable position as an authority upon thyroid derangements. The complete discussion sums up our entire knowledge of the subject and supplies us with pertinent conclusions. The operative technic is splendidly outlined.

We more than urge that our readers secure this and future issues of the Clinics of Dr. Crile.

THE MANAGEMENT OF THE SICK INFANT. Langley Porter, M. D., M. R. C. S. (Eng.) Prof. of Pediatrics, University of California and William E. Carter, M. D., University of California. Cloth, 654 pages. Price \$7.50. C. V. Mosby Co., St. Louis, Mo.

This is the first English text that deals exclusively with the peculiarities of disease as it occurs in infants. As such it arrests attention and commands our approval. Its chapters cover vomiting, diarrhea, constipation, nutrition, hemorrhage, pain, convulsions, fever, cough, respiratory diseases, diseases of the digestive tract; heart, blood, nervous, skin, genito-urinary, osseous system, internal secretions, infectious diseases, methods of treatment, formulas, drugs and poisoning.

One is impressed by the thoroughness, scientific scope and practical application of the discussion. A veritable host of intensely helpful material is

found in its pages. As such it is bound to be of greatest assistance to physicians. It is a text that has long been needed and looked for. It is certain to become exceptionally valuable to every medical man. In fact we cannot see how he can afford to be without it.

NERVE EXHAUSTION. Maurice Craig, M. D., Cambridge University. 148 pages. Price \$2.25. Lea & Febiger, Philadelphia.

A monograph discussing the causation, symptomatology, sleeplessness, diagnosis, prognosis and treatment of nerve exhaustion. A text that carries with it the impression of the authoritative position held by the author.

PRACTICAL THERAPEUTICS. Hobart A. Hare, M. D., L. L. D. Eighteenth Edition, 144 engravings, 1038 pages. Price \$6.50. Lea & Febiger, Philadelphia.

This long established therapeutical guide and authority comes to us in its eighteenth edition, enlarged, thoroughly revised and largely rewritten. It is the peer of modern therapeutics, containing all the good of its former issues, the elimination of all that is obsolete and the incorporation of that which is new and of proven value.

Its contents are so placed before the reader that he may readily and effectively apply it at the bedside. Little more need be said regarding a work that is so widely recognized. It is one book that no physician can afford to be without.

HAY FEVER AND ASTHMA. William Scheppegegrell, A. M., M. D., Chief Hay Fever Clinic, New Orleans. 107 illustrations, 274 pages. Price \$2.75. Lea & Febiger, Philadelphia.

A splendid discussion of the care, prevention and treatment of hay fever. We advise the study of this text before undertaking the treatment of any patient suffering from hay fever.

A PRACTICAL TREATISE OF DISEASES OF THE SKIN. Oliver S. Oransby, M. D., Professor of Skin and Venereal Diseases, Rush Medical College. 1165 pages, 415 engravings. Second edition. Price \$6.50. Lea & Febiger, Philadelphia, Pa.

The first edition was received by the profession most cordially on account of its intrinsic merit. This second edition is bound to receive a more cordial reception than the first. It contains much new material, splendidly illustrated. Four hundred pages have been rewritten and fifteen new diseases described.

As a text it stands out as a most reliable guide for the doctor in the diagnosis and treatment of skin diseases. We are disposed to commend it very highly and would that it might obtain wider distribution for he who reads its contents cannot help but adopt its practical application, thereby lessening the mediocre treatment of skin diseases that is so prevalent.

RELATION OF ARTERIAL HYPERTENSION TO NEPHROPATHIES— SUMMARY

1—Arterial tension should be studied in all clinical cases over 40 years of age.

2—Both systolic and diastolic pressures should be studied. When the diastolic is high, careful study of the renal efficiency should be made at yearly intervals.

3—High diastolic pressure is indicative of continued stress in the arterial system and more likely to produce renal inefficiency.

4—The renal efficiency diet test may show evidences of renal inefficiency, such as fixation of specific gravity, increase in night urine, and retention of urinary nitrogen, before positive changes occur in the blood pressure or before positive increase in nitrogenous waste occur in the blood.

5—Persistent presence of albumin in the urine is not necessarily an evidence of marked renal inefficiency.

6—Observation on cases with low diastolic blood pressure justify a more favorable prognosis (regardless of the height of the systolic pressure) than a high diastolic.—Dr. M. A. Mortensen, Bulletin of the Battle Creek Sanitarium and Hospital Clinic, March, 1922.

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Original Articles

PRESIDENT'S ADDRESS—THE MEDICAL PROBLEM*

W. J. KAY, M. D.
LAPEER, MICH.

The President's address is something of a swan's song, and is usually his last opportunity to speak from the vantage ground of leadership. I am going to take the opportunity of presenting some thoughts that should have a general appeal and which I am sure, if acted upon, would help us solve many problems and make the future of the practice of medicine in Michigan more pleasant.

Before doing this I would call your attention to the addresses of the different officials of the American Medical Association delivered at the meeting in St. Louis and also the report of the several Councils. They are so full of information and inspiration that I do not remember any meeting that has been as interesting and had such sensible action as the one just past. I would like to call your attention to the address of the Speaker of the House of Delegates, Dr. Warnshuis, in which he strongly advocated that more attention and much money be devoted to some of these other interests in a physician's life. A note has been sounded that indicates that our leaders have discovered that there are other sides to a physician's life than the educational. It is worth your while to read in the *Journal of the Michigan State Medical Society* the report of a meeting of the American Medical Association (trustees, held just before the general meeting at St. Louis, in which every one present expressed an interest in this fact and a desire to balance the activities of the parent organization. It sounded like a caucus of congressmen who had heard from back home. However that may be, physicians will welcome the expression of interest. The reports of the several committees of the Michigan State Medical So-

ciety have been published. This is done for your convenience that you may become conversant with the activities of your society. It is your duty to read them.

PROBLEMS

Parodying the words of Coleridge, we might say: "Problems, problems everywhere, nor any time to think." Religion, Law, Art, Teaching, Medicine, all are busy trying to adjust themselves and it cannot be said that the way or light is always clear. Every group in the body politic is being weighed and measured and new values are being established. Institutions, traditions and beliefs that seemed a very part of the people themselves have been found wanting and thrown into the discard. I do not think this is much different than it has always been, just more intensive. The world was jolted from an orderly progression to disorderly, hasty action that kept us wondering, "what next." Our greatest problem is largely of our own making and consists, for the most part, of our attitude to these proposed changes in the established order of things within and without the profession of medicine. I submit that those arising from without are more difficult of adjustment than those arising from within for the reason that to the solution of those arising from within we can bring the traditions of our profession and, in some measure, the fundamental law or code, neither of which, for very obvious reasons, can apply to those arising from without.

I have no sympathy with the statement that the code has outlived its usefulness. I do not think it has or ever will outlive its usefulness. The trouble is we are not as familiar with it as we should be. We are too prone to apply to where application is not possible and then to discredit it. I can see how, at the present time, it should be enlarged to serve as a guide to our collective action in matters where the whole body politic is concerned but in the relationship of physician to physician or individual physician to individual patient, it stands as the wisdom gleaned from years of experience. It has seemed to me that, at present, just good common sense is one thing we have

*Delivered at the 57th Annual Meeting, Flint, June 7, 8 and 9, 1922.

to guide us collectively in the problems that pertain to our relationship to other groups in the nation.

FACTORS

Let us consider a few of the things that have disturbed our equanimity during the past four or five years and see if there is a lesson that will help us to determine our right action in the future. First, State Medicine, a movement developed and financed by laymen, aided in a small measure by prominent members in our profession. However brilliant its advocates it had no appeal nor could it have any to the American people. We heard so much about it that our nerves became jumpy when anyone mentioned it and we were apt to classify with State Medicine many things that have no relationship to it. It would not be fair nor do credit to ourselves to name all those who were interested in State Medicine as knaves and fools. Every new idea in the science and art of medicine stands as a challenge to us that we must meet fairly. Our experience in Michigan has shown us that the profession, united, has nothing to lose by conceding to a new idea a fair field, thorough discussion, and if found not worthy, giving a good fight in the open. We must always remember, however, that a good fight is as important as a fair field. Whatever headway State Medicine had made in Michigan was completely destroyed by our discussion of the subject at the Kalamazoo meeting, and it will remain so as long as we, understanding whence it came and what it means to our State, are united in opposition to it. During the period of unrest happily passing, attempts to discredit the medical profession was a somewhat popular indoor sport in which a few of our own members joined. Every reformer in Health matters began or bolstered his campaign by questioning the honesty or ability of the physicians. We sometimes felt that we were on the defensive and by accepting statistics of little or no value sometimes felt discredited. An example of such statistics were those based upon an attempt to convert a civilian group of high average age into a military group in a short time, an undertaking, every fair-minded man will concede, was a tremendous task. I think results show it was accomplished with no discredit to the profession. That some, lacking power of adaptability and with no special training, failed, was only to be expected.

Another example of faulty statistics was that pertaining to pregnant woman in Michigan. Indicating that she had exceptional and unusual danger dependent on the care given her by the medical profession, to say this is to say what is not so. There are no statistics

of value to even suggest it. If registration and hospitalization is necessary before she can be properly cared for, then common sense will tell any person that through her own objection she will never receive the care the enthusiasts think is necessary. The pregnant woman of Michigan can rest assured that her family physician is alive to her needs. He will instruct her and will bring to her whatever the profession has for her relief and care. To admit the truth of such loose statements would be a serious reflection on ourselves and our medical colleges for the medical men of Michigan are just as good as our schools have made them. Those having special interest in the work worthy of the interest of the whole profession would get farther if they came in the spirit of enthusiasm for better work rather than in the spirit of damning the past and present by statements, which if based on facts, would be most humiliating.

COMMUNITY HOSPITALS

How many men in Michigan have given a lot of thought to problems that have never existed and paradoxically have always existed. Have never existed in the sense that the profession of Michigan failed in rendering the service due the people or failed in bringing to the healing of their sickness the knowledge and skill possessed by the profession as a whole. Always existing in the sense that we should strive for greater efficiency and search out ways for making tomorrow better than today. We were coldly critical of these men during the war times when we were all, figuratively speaking, up in the air searching the clouds for remedies for professional ills that had not much more substance than the clouds we searched. The effort was honest and earnest but many times showed a lack of appreciation of the real situation. The lack of general practitioners who would go into small towns and sparsely settled districts was to be met by giving each county a hospital. Hospitals are to be desired and no one would welcome them more than the country doctor, but no one, intimately familiar with this problem, could urge that the hospitals would take the place of the lack of general practitioners. One report at the American Medical Association meeting outlined a plan whereby men located in these hospitals could go into outlying districts for a few hours to meet the sick and make arrangements for the removal of those who, in his judgment, required hospitalization. It seemed to me when I read this that this man was applying to country districts what would be perfectly right in thickly populated districts of the city. How utterly absurd it would be to transport miles to a hospital, a case of pneu-

monia already sick three or four days or an expectant mother after labor had begun. It is possible in either of these cases it could be done but disaster would follow the attempt often enough to discredit any such an arrangement. Visiting the sick in their homes is your point of greatest contact with the public and it should be conserved. Its value to the public should be constantly increased. It has been and always will be the very foundation of our professional work. Group medicine in or out of a hospital has its place, evidently a very small one. A few diagnostic clinics are a necessity. The many specialties are a need to us, but all these put together does not compose, at the outside, twenty per cent of the work done by the profession. When the day comes that we feel that we have neither time nor inclination to make "domiciliary visitations" as one eminent physician calls visiting the sick, we can all "fold our tents and silently steal away." The people would have nothing of us and from top to bottom we will be in the discard.

RURAL PHYSICIANS

There is only one way to meet the need of the outlying districts and that is to graduate more general practitioners, no less educated than the present day graduates, but with less tendency to specialism. This could be done by requiring five years of general work before preparation for specialty and a special registration for those engaging in specialties. Or it has occurred to me that we could have a junior degree given at the end of the third year of a re-arranged medical course which would give the holder the privilege of practicing for three or five years under the supervision of his faculty and requiring him, at the end of this term of practice, to come for his doctor's degree which would be given at the end of another year in medical college. This would enable the faculty to place him and require him to come to the college for a short period each year which would certainly be a good habit to establish. This three or five year service would take the place of an internship. I do not know whether this could be made a success or not, but it has appealed to me as being worthy of consideration.

With the passing of the preceptor there also passed a powerful influence for the directing of young men into general practice. Do not waste sympathy or pity on the country doctor. He doesn't need it. I had six years of it and know whereof I speak. He has many things that compensate him for the loss of the pleasures and comforts of the city. I have never thought the problem was one of economics for if a doctor is a financial failure in the country he would be any place. He may not have the

opportunity for fees that run from one hundred dollars to an unnamed amount, but he will be able to do as well financially as the average city physician. Why should young men back up from the hardships of country practice? Medicine is a profession of service and not a commercial venture, and any attempt to make it so will end in discredit and usually failure. True, we must live by our work, but in my life I have never seen the man who works for the joy of it, go hungry or his children begging bread. It is the law of life that he who gives most gets most and the men who give most are usually the men who are accomplishing most in every walk of life. I have often thought if these young men knew the joy of living away from brick walls and stone walks, in God's open country where the sunshine and clear air and broad green sweeps of nature thrilled them at every turn, more of them would be country doctors.

PUBLIC RELATIONS

Our relationship as a group to other groups and to the whole body politic gives rise to differences, friction and criticism because of regulations which we think restrict our freedom of action and hampers our effort for the common good. We are the autocrats of the sick room. We are used to saying, "This is the proper course and it must be followed," and we are obeyed, but we cannot carry this same autocratic spirit into the relationship of our group to the public. Attempts to do this brings the friction, motives are questioned and misunderstandings arise that defeat efforts for the public good. I have no fears for the individual physician, however autocratic, as a rule his heart is right. His earnest service brings him the gratitude of the individual patient, but multiplying this one thousand times or ten thousand times does not give you a true picture of the relationship existing between the profession and public. The psychology of individual and mass reaction to similar stimuli is entirely different and a lack of appreciation of this fact has led us to be indifferent to its possibilities and its legitimate use. At your last meeting you made a start in this direction by creating a committee on public policy. You failed to furnish sufficient funds to make its work successful, a proof of that fact that we have not yet learned to collectively act wisely. On his own initiative, the chairman of this committee, Dr. J. B. Kennedy, approached Dr. Burton, President of the University of Michigan, proposing a united effort on the part of the State Medical Society and the University in the matter of educating the public and, through the power of the truth, developing sound public opinion in things pertaining to

Public Health. From that effort of Dr. Kennedy's and its whole-hearted reception by President Burton, plans were developed by his committee that were presented to the Council and approved by them, since which time the committee has been enlarged and a very comprehensive program has been arranged. It is most gratifying to state that in the short time elapsing since the first bulletin was published giving the list of the speakers and subjects, there has been a call for speakers that assures the success of the undertaking and indicates that the people are anxious to be instructed. Have you ever given consideration to this fact of our duty, as a profession, to the public? We are sure that, up to the present time, all progress in scientific medicine has come from the medical profession and their associates. Nothing is more true than this statement, but what effort have we made to have the public know it? How little do you see in the Public Press. Only once in a while an article, and so often they do not ring true. Since the time of the first man to set himself apart to care for the sick up to the present time, a history of what the medical man has achieved in ferreting out the causes of sickness, controlling epidemics, alleviating distress, healing the broken in body and mind and making life altogether safer and happier, reads like a romance. Then why not tell it again and again? Why only speak of our heroes in medical meetings? Why not acquaint the whole countryside with the history of the control of diphtheria, typhoid fever, child-bed fever, malaria, bubonic plague, and pneumonic plague and many others? I mention these because they stand out and their control is largely within our own time and ken. If you want to find out how little the public knows about these things, ask the educated persons in your practice to tell you about it. You will find they know practically nothing or what little they do know is incorrect and hazy. This is our fault. As a profession we are too self-centered, we withdraw from the people. In times past we have resented their interest in and desire for more knowledge of our work. I have heard it said by medical men that the people are not interested in the history of medicine. If you wish to test their interest, announce a Sunday evening meeting in one of your churches and the subject "Medicine." Advertise it well. Let the speaker give the facts with a human touch. Tell them not only of curative medicine, but also of preventive medicine. Tell the mothers of the wonderful advances in caring for her baby and the resulting lowering of the death rate. You haven't a church big enough to hold the crowd

that will come. The people are interested and want to know and we are not giving them of our knowledge or attempting to satisfy their interest. What is the result? Lay-workers who have but touched the hem of the garment, lay organizations enthused by the wonders and possibilities of our proper functions, even those who know nothing and can have no vision, come between us and the people and attempt to teach them. The people, in their intense desire to know, follow after these enthusiastic but false teachers. I would not destroy the least tradition of our profession. They are the growth of generations and the expression of self-evident truths but I cannot interpret them as meaning that the profession as a whole should not break away from its isolation. I would not want to be understood as finding fault with organizations such as the Rotary Club and others arranging for clinics for crippled children or what not. They are usually live men in their community and, no doubt, accept the guidance of their medical members. Much interest is aroused and much good comes from setting apart a day for the bringing in of a particular class of the sick and we much welcome their interest and aid, but for it to be necessary for any lay organization to take the initiative when we have the necessary local organizations for that particular work, surely indicates that we are too self-centered and that broad thinking and general action is to be developed.

The time was and not so very far distant when one man could comprehend all the science and knowledge of medicine. He could be surgeon, internist, public health officer, and still find time to teach the student. That day has passed, for with the great increase of knowledge it is not humanly possible for one to know and use it all. With this increase in knowledge, division of labor was necessary and many teachers were required. The development of a public health consciousness demanded more time for that service and greater than all, the advance in curative medicine made it necessary that there be still more division of time and interest. The simplest primary division for effective work is teaching, curative medicine and preventive medicine. We should not lose sight of the fact that the division is for the more effective use of our time and knowledge, not an actual division. We are all of one profession. The work of the two smaller divisions numerically must necessarily be state functions. Why state functions? Because we are not ready to carry on. Suppose we do not care to admit this and we say we are ready to take over and control all activities pertaining to the profession, then we will wipe

the slate clean and begin to organize for effective work and at once we find the same divisions will be necessary, teaching, practicing, prevention. Teaching and prevention of Public Health functions must always be government controlled, for the reason that the funds must be forthcoming and only the government can supply them in sufficient amounts. It is a debatable question as to how far government control should go, but there can be no question that they should supply the funds. This necessarily means they should have some control. This is a statement, simple and self-evident, but it is the forgetting of this that causes some of our troubles.

The medical profession as a whole, through their own efforts, is in the possession of knowledge that has very materially reduced sickness and the death rate of infectious disease and lengthened the average human life. I do not think that anyone would say that this knowledge has been used to one hundred per cent efficiency or that it is possible to increase the percentage of efficiency without setting apart a part of our profession, who will be especially trained for the work and who will have the authority of the government behind them to enforce the regulations. No general practitioner is ready to give of his time to such public work, nor can he give it only in an incidental way if he performs his own duty well. This being true, we should co-operate with and support the Public Health Physician. Up to this point we have no disagreement, but when the Public Health Worker begins to function as a curative medical man and employs lay workers who are many times, in fact, practicing medicine, we must question his right to do so and insist that all who care for the sick or presume, with the authority of the State behind them, to give advice in the care of the sick, shall have the same qualifications. The public good demands it. Some of our troubles and perhaps the most of the friction between men in the different fields of professional endeavor have been due to the enthusiasm of the workers. We all know that the joy of having found the touchstone leads sometimes to extravagance. The teaching division of the profession doing the most fundamental work, that of preparing us for the service, has perhaps the greatest responsibility, and I am sure that they feel it keenly. Have the other divisions no interest in this work? Have we a suggestion to offer, not critical, but helpful in intention, not with the feeling that we can solve all their problems, but only that we sense some of them and are interested? Many times it is worth while to have the view of the man outside, one removed from the teaching centers,

who, though exacting of science the truth, comes to feel that the art is the thing. I cannot feel that a teacher's work is only imparting knowledge regardless of his finished product. The acquiring of knowledge for the mere possession of it is a very selfish, useless thing and not worth while. The desire and ability to use it makes its attainment worth striving for. The proper balancing of science and art in the making of a physician is worthy of the interest of all. Our teachers and leaders are showing interest in us after our graduation, developing plans whereby we can obtain from them the advances that have been made since we left our Alma Mater. At different points in the state, post-graduate instruction may be had for the going for it. This should give rise to kindly feelings on our part and an attendance that would encourage them to greater effort in this particular work.

CONCLUSION

Gentlemen, I have, in this talk, endeavored to bring to your attention the fact that our activities touch at many points within and without the profession and that these same activities require a division of ourselves into many special groups and that these groups have drifted apart until between them sometimes exists a feeling of antagonism or at least indifference with its consequent lessening of our influence for good. Can we not from now on have a united profession, lay our lines of endeavor parallel and not at cross purposes? We have the machinery within our organization to bring this about. The Council could arrange quarterly conferences of representatives from at least the three principal groups and open to representatives from any sub-group. This, I am sure, would result in a good that I do not think we can measure. From personal contact and conferences I have found the teaching division and the Public Health Department ready to co-operate with the rest of us. Can we not put aside the animosities of the past, avoiding as far as lies in our power the friction and disagreeable things for which we are equally responsible and turn to a future so full of possibilities to a united and harmonious profession? Each of us having an enthusiasm for our own work duly tinctured with humility, and a kindly sincere interest and respect for the work of the other groups.

A profession with a past, resplendent with the achievements of such men as Pasteur, Lister, Koch, Walter Reed and a host of others and with a world need for still greater achievements and within ourselves an earnest desire never greater than at the present to serve in the fight against sickness and disease, we can be assured of its ability to cope with any situ-

ation that may develop now or in the future, and know that the things that annoy, are but incidents common to all human endeavor and progress.

A united profession—if I can impress you with it; if I can make you feel as I feel, that it is the one thing necessary for a big forward movement for establishing ourselves in the hearts of the people through increased service, then I will not have spoken in vain.

AN UNUSUAL CASE OF HYPERNEPHROMA

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The following case is reported for two reasons; the length of time since the onset and the unusual origin of the tumor.

While operating for various intra-abdominal conditions I have noticed small, pinkish gray nodules attached to the mesentery in various locations, especially in the region of the cecum and terminal ileum. On microscopic examination these particles have been found to be accessory adrenals. Another rather common site for accessory adrenals is in the broad ligament where some authors have described them as normal and fairly constant organs.

Whether or not these accessory glands are normal and placed in their various locations as a compensatory measure in case of emergency, or, whether they are the results of developmental irregularities is difficult to say, but it must be remembered that their very presence renders them liable to various disease processes, especially that of neoplastic degeneration as shown by the case here reported.

CASE REPORT

Case: Mrs. M. White, age 55. Complains of a severe backache which had a rather sudden onset about six weeks ago while lifting. Has had occasional backaches within the last five years, but these were of short duration and never required the services of a physician. Has been employed as a housekeeper for the last six years and has been able to perform all the duties connected with this occupation without difficulty.

Present attack of backache has been very severe and almost constant for six weeks. Pain does not seem to have any relation to movement nor does a change of position or rest in bed relieve it. There are no other complaints.

Past History: Has had no other illnesses. Menstrual history negative. Menopause at 53 without difficulty. Has never had bloody or other vaginal discharges. Two children living and well. No miscarriages. Husband died at 33 of apoplexy. Appetite is good, no

digestive disturbances, no urinary symptoms. Bowels are regular. Thinks she has lost a little weight within the last year.

Physical Examinations: Patient is an intelligent woman of about 50, not acutely ill. Head, neck, thorax and extremities show no abnormalities. Abdomen is large, having the appearance of a five months pregnancy. When questioned the patient stated that her abdomen had been as large as at present for at least twenty years and had been told the enlargement was due to a "loose" kidney and that she had never attached any special significance to it. On palpation the prominent abdomen is found to be due to a large mass lying in mid-abdomen. There is a depression over the symphysis pubis, and the tumor does not seem to rise out of the pelvis. The mass is firmly fixed, not nodular nor tender and does not move with respiration. Vaginal examination reveals nothing of note. Uterus can be made out as small and freely movable. Appendages could not be felt.

X-ray of spine showed no abnormalities.

Blood: Hgbl. 75%, reds 3,800,000, whites 7,000.

Urinalysis: Clear, acid, sp. gr. 1.020, negative for sugar and albumen. No blood or casts.

No definite diagnosis of the nature and origin of the tumor was made except that a benign retroperitoneal cyst was thought to be the most probable.

Operations August 1, 1922. Ether anesthesia, median incision.

On opening the abdomen a tumor mass the size of an adult head presented. The surface was smooth and extremely vascular and gave the impression of a thick walled cyst. The pelvis was examined and found normal. The tumor was attached to the retroperitoneal structures by a short thick pedicle making delivery rather difficult. The pedicle had its origin just below the attachment of the transverse mesocolon, the latter being pushed forward and forming the peritoneal covering of the tumor. The transverse colon was adherent to the upper pole; this was separated and the peritoneum over the mass incised and the tumor enucleated. On dissecting down posteriorly the third portion of the duodenum was found firmly adherent and was separated with difficulty. The pedicle was clamped and divided and the tumor removed. On careful examination it was found that the large artery supplying the tumor arose directly from the aorta on its anterior surface just below the level of the renals. Likewise the vein was a tributary of the vena cava. The pancreas was found normal and likewise both kidneys were carefully examined and found normal. No

other pathological conditions were found. The opening in the posterior peritoneum closed with a continuous catgut suture and the abdominal incision closed in layers in the usual manner. The patient was in good condition at the close of the operation.

The pathological report by Dr. W. L. Brosius of the Detroit Clinical Laboratory follows: "Weight 1812 gms."

"The tissue shows malignancy. The tumor is encapsulated and very vascular with many degenerated and hemorrhagic cysts. There are a few areas of calcification in the older cyst walls. On section the tissue is spongy with occasional firm plaques.

"Sections show a more or less trabecular arrangement of the cells several layers deep, the trabeculae separated by thin connective tissue strands.

"The cells are mostly polyhedral with distinct cell boundaries, and granular cytoplasm with numerous vacuoles. There are occasional giant cells, areas of pigment cells, and a few scattered bundles of spindle cells.

"In the plaques the trabecular arrangement is more definite, the cells smaller and with a denser cytoplasm."

"*Diagnosis*: Hypernephroma."

The patient made an uneventful operative recovery and showed no evidence of further trouble until October 15, when she complained of pains in the upper left arm and over the eighth rib on the right side. She refused an X-ray examination of the bones. Shortly afterward she developed similar trouble in the left femur and at this time a fusiform enlargement could be palpated in the humerus, and there was also an irritating cough with occasional blood streaked sputum. A diagnosis of a generalized metastasis was made and death occurred on December 14, 1921. Permission for necropsy could not be obtained.

SUMMARY

The points of interest in this case are: (1) This malignant neoplasm has been present and at its present size for about twenty years without causing any disability or appreciable discomfort. (2) It undoubtedly had its origin in an accessory adrenal gland deriving its blood supply from an anomalous vessel, lying between the layers of the transverse mesocolon. (3) In making a diagnosis in cases of obscure abdominal tumors, a hypernephroma originating in a fetal rest or accessory adrenal must be taken into consideration.

CARDIAC NEUROSIS*

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Without exaggeration, it can be said that fully 40 per cent of patients coming to phy-

sicians complaining of heart trouble, have no demonstrable organic lesions. The subject, therefore, is an important one, one that we should try to understand clearly, in order to treat our patients correctly. Many of them come complaining of pain about the heart, of momentary stoppage of the heart, of tachycardia, of pre-cordial distress and discomfort with dyspnoea, which makes them fear that they have heart disease. Sometimes a murmur can be detected.

Much confusion exists in medical minds concerning the significance of cardiac murmurs. There are many who regard any type of murmur with grave suspicion as being indicative of serious heart defect. Other men advise that murmurs be disregarded unless there be other symptoms. It seems that a grave prognosis is not indicated with the majority of murmurs, though they should not be completely disregarded. The prognosis rests largely upon the integrity of the myocardium. Murmurs of certain types, accentuations, reduplications, and thrills are frequently discovered and are often without clinical significance. We always must consider the correlative findings to properly interpret a murmur. I have come across a number of patients who have been forced to spend years of comparative inactivity because of the chance discovery of a murmur, which caused the examiner to give a grave prognosis and prohibit any but the lightest exercise. These patients went through years of worry and fear, firmly believing that any exertion might lead to sudden death.

The cardio-vascular examining boards in the army discovered a considerable percentage of individuals having murmurs, and many with valvular impairment, who had led active lives without having been conscious of any impairment. In the ordinary normal individual, the knowledge of such a defect or functional murmur would make little difference, but in the case of an unstable, worrying neurotic, such a knowledge might easily lead to a fixation of his attention on the heart, so that he would be almost continually conscious of his heart beat and aware of any change in rhythm or rate. The focussing of his attention on the heart, I believe, has a tendency to interfere with its proper function so that the heart finally becomes the organ through which the neurosis chiefly manifests itself.

The term neuro-circulatory asthenia used during the war can be applied to many of them. They suffer from neuro-circulatory instability, chiefly manifested by marked emotionalism, cyanosis of the hands and feet, dermatographia, tremors, and attacks of asthenia leading to

*From Jefferson Clinic.

fainting and sometimes to epileptiform convulsions. Often they resemble cases of hyperthyroidism and sometimes it is necessary to determine the basal metabolic rate in order to insure a correct diagnosis. In these cases it is generally possible to elicit a family history of neurasthenia, epilepsy, hysteria, or of nervous and emotional instability. Usually these individuals were weak and sickly in childhood; they led a quiet and inactive life because they found that strenuous games and sports produced shortness of breath and palpitation. Most of them followed sedentary or indoor occupations either by choice or because physicians advised it.

In view of the fact that so many of these cases of cardiac neurosis present some of the signs of Graves' Disease, one is tempted to regard their trouble as being due to increased activity of the thyroid, and since some observers are inclined to regard them so, it is important to go into this question somewhat more fully. "The Report on the Study of the Basal Metabolism in 57 Cases of Irritable Heart of Soldiers" by Major Peabody at General Hospital No. 9, in 1918, is therefore of interest. In 54 of them the basal metabolism was essentially normal. In the three others the basal metabolic rate was 16, 18 and 22 per cent respectively above normal. Strange to say, none of these three presented any signs of hyperthyroidism. Considering the fact that many of these patients were unusually nervous, it is rather remarkable that so few had a metabolism at, or so slightly above, the normal limits. Permit me to quote a paragraph verbatim. "In spite of the fact that the metabolism studies lend little support to the view that the over-activity of the thyroid gland is a factor of importance in this group of 57 cases, nevertheless the clinical diagnosis of hyperthyroidism was made by competent observers in 24 instances, and curiously enough, none of these were patients with a metabolism above normal. That the diagnosis was made so frequently depends in part on lack of time and proper facilities to study the patients, but in part on certain superficial resemblances between these cases and cases of Graves' Disease. Nervousness, often in a marked degree, is almost constant in the functional heart cases. A tremor of the hands is present which cannot always be differentiated from that of Graves' Disease. The thyroid is often rather full and the isthmus easily palpable but this is usually accounted for by the fact that the patients are at an age when the thyroid is often somewhat large and, in many instances, by the patient coming from a region where goitre is endemic. Thrills and bruits over the gland, so frequently found in Graves' Disease, are

very rare. Eye signs suggesting Graves' Disease are not very uncommon and well-marked lid-lag was noted in several cases in which there was little or nothing to suggest a diagnosis of hyperthyroidism. Tachycardia reaching 120 to 130 or even more is very frequently present when the physician examines the case. This tachycardia is, however, essentially different from that seen in Graves' Disease, for it disappears if the patient is allowed to lie down quietly for half an hour. The pulse counts taken by the nurse in the morning are usually normal. This tendency of the pulse to fall to normal when at rest and in the absence of excitement is quite different from the findings in exophthalmic goitre. One might argue that these are mild cases of Graves' Disease, in which there is only slight over-activity of the thyroid, insufficient to cause a demonstrable rise in the metabolism. Several points, however, are opposed to this hypothesis. In the first place, the nervousness and the tremor are often so marked that from comparison with definite cases of Graves' Disease, one could be certain that the metabolism would be increased; second, if cases of mild hyperthyroidism were so common, it would be almost inconceivable that outspoken cases would remain rather rare; and finally, the whole clinical picture of the two conditions is fundamentally different. In the cases of irritable heart one usually gets a history of prolonged, often life-long nervousness, associated with weakness and lack of energy or ambition. The more acute nervousness with rapid loss of weight and diarrhoea, which is characteristic of Graves' Disease, is absent. The nervous activity, the restlessness, the physical and mental energy of the patient with hyperthyroidism, give place, in the cases of neurocirculatory asthenia, to cases of physical and sometimes mental inertia, and a desire to evade even the normal strain of life. The patient with exophthalmic goitre will usually take his rest cure only under protest. The patient with irritable heart will adapt himself to the same treatment only too readily. Psychologically they are fundamentally different.

And it is psychologically that we must approach them. This can best be done by observing them closely, watching their behavior and general reaction, by gaining a direct and subjective impression of the patient's attitude and feeling by sympathetic induction. By this I mean the faculty of conscious or unconscious imitation of the patient's attitude, facial expression, voice, mood, and mannerisms. In this way we reproduce in ourselves, sometimes with astonishing nicety, the mood and attitude of the patient. We, therefore,

can obtain inside information of how the patient himself is feeling. It is not difficult to know, then, that he is apprehensive, fearful, worried, or depressed. Questioning with this information as a clue will then often lead to a long story of worries and anxieties with which the patient feels unable to cope and from which he cannot escape. Often these worries and anxieties are not on the surface. The patient has repressed the cause, and sometimes a more or less tedious analysis is necessary to uncover the real trouble.

Now why should such worries and anxieties express themselves through cardiac distress and palpitation? The reason is obvious when we look at the matter from the psycho-physiological standpoint. Worry and fear are emotions both consequent upon the arousing of the instinct of flight or self-preservation, for worry is really naught but chronic fear. Now the fear instinct, the innate psycho-physical predisposition to receive dangerous stimuli and to react to them by appropriate vaso-motor and motor responses necessary for self preservation is thrown into activity by experiences with which we are unable to cope and from which the individual therefore, tries to escape by running or hiding. In order to mobilize the body for immediate and prompt response and to make available the energy for running, certain physiological changes take place at once. Among them are: pouring out of adrenalin into the circulation with peripheral vaso-contraction and coronary vasodilatation, increase of respiration, and particularly acceleration of the heart beat.

Hand in hand with this go other changes in the bodily organs, such as change in the tonic postural contractions of the diaphragm, stomach and intestines with stoppage of gastrointestinal secretions and peristalsis which in many cases is at the bottom of so-called stomach trouble and indigestion. We will, however, consider only individuals in whom precordial distress and palpitation are the main avenues through which fear and other emotional tensions discharge and manifest themselves. If we could always run away whenever we get afraid and so escape the feared object, there would be no trouble. The instinct would be satisfied, the individual would feel safe and comfortable. But there are in life innumerable situations from which we cannot escape, from which we often do not want to escape. Among these we may class financial and particularly social worries.

Take for example cases of women we get rather often in the out-patient departments, complaining of cardiac distress and attacks of palpitation. Many of them are widows with

several children trying to get along on their mother's pension. They are unable to make ends meet in this time of high prices, they are fearful of the future, depressed, worried, and many of them would not care to live were it not for the children. They are tired out, exhausted. Examination and questioning reveals many other signs of fatigue, such as insomnia, indigestion, headaches, low blood pressure, etc. Though generally they have many complaints, there are some in whom the heart is the inferior organ and through which, therefore, the emotional tension discharges itself through palpitation and feelings of distress. Many of them try hard to repress their worries and fight against the odds. They sometimes succeed by shunting their attention from the real trouble, from the cause to the effect; and so they worry about it and talk about the heart and seek medical relief for cardiac trouble.

Others again are very unhappily married. They do not love their husbands, they dread his caresses, his approach, his very presence. They are not strong enough to assert themselves to end an unbearable relationship. And so they go into a neurosis. Often their coldness arouses the anger and jealousy of the spouse and so there are scenes, reproaches, and quarrels that lead to emotional tension which in some people immediately produces cardiac manifestations. It is not unusual that the wife then makes use of her symptoms, enlarges upon them, complains terribly of her heart, and so diverts her husband's attention, gains his solicitude, and makes him feel that he has been a brute. It is not uncommon that such women abhor sexual relations because they do not love. The dread of it easily provokes attacks of palpitation and distress and through playing up these symptoms they often evade the ordeal.

In this connection it is interesting to refer to a theory of Freud's according to which anxiety attacks with palpitation and dyspnea are provoked by unsatisfactory sexual relations. He claims that unless complete satisfaction and relaxation are achieved the excitement and tension will remain and later discharge itself vicariously through other channels, very often in the form of restlessness, anxiety, with palpitation and pre-cordial distress. Coitus interruptus and ejaculatio praecox are potent factors, the one injuring the male, the other the female the most. To be sure only a small percentage who practice, or have, incomplete sexual relations are so afflicted, only those with a faulty nervous organization that cannot stand or bear emotional stress and tension. I have had a number of

cases that certainly seem to bear out Freud's views. One patient in particular complained about severe heart attacks, stating that he was subject to spells which usually began with an oppressive fear which seemed to produce a sudden stopping of the heart and would then lead to pounding and severe palpitation that produced an overpowering fear in him of impending death. Sometimes these attacks of palpitation and dyspnea would last five minutes, sometimes much longer. No matter how many he had passed through unharmed, he always feared the next would be his last. Close questioning revealed that they always occurred on the day after coitus interruptus. He himself, however, had never connected these two factors. Furthermore, it developed that he had had these attacks for years at different periods. Investigation of these periods showed that they coincided with the times during which his wife was not pregnant. He recalled them definitely, that he had always been free of these attacks when his wife was pregnant and when he was able to complete the coitus without fear of consequence.

The bad after-effects of unsatisfactory sexual relations are more frequently encountered in women than in men. Their husbands practice withdrawal, or the fear of pregnancy causes them to inhibit full participation and so the tension remains and the next day they wonder why they are irritable, restless, nervous, and have attacks of palpitation and dyspnoea.

I have come across a fair number of cases in young people, in which the cause of the palpitation and cardiac distress was distinctly traceable to the after effects of masturbation; the struggle against it and the fear of being detected by others.

More often the cause of anxiety attacks is not so near the surface. I have in mind now the case of a young man who for months had been having attacks of pre-cordial distress with palpitation, fear of death and fainting. These spells would usually continue until his physician appeared on the scene, and then he would quiet down gradually and go to sleep after awhile. The doctor, finally getting tired of being called out at all hours, referred the case to me. During my first visit I saw him in one of these attacks and I was able to bring him out of it by sharp words of command and strong inframammary pressure. The impression conveyed to me by his reactions and personality was that of an effeminate, handsome young man and this impression was strengthened when subsequently the mother proudly told me how formerly he had loved to help her with the housework and showed me nu-

merous samples of the splendid fancy work he had produced. I treated him subsequently for months with suggestion and static electricity for temporary relief, and during that time I undertook an analysis in the course of which he was brought to realize his abnormal early attachment to his mother and the subsequent transfer of his affections to the physician—this sequence, by the way, being by no means unusual, for in the case of an oedipus complex fixation, it is often impossible to transfer the affect to a member of the same sex as the object of the abnormal fixation. They therefore become homosexual and not infrequently go either into a neurosis or a psychosis. During the course of several years this young man was gradually, gradually led back to functional normality. He renounced and broke his attachment to the doctor, asserted his independence toward the mother, and during the last year has been independent, self-supporting, and self-respecting. (So far, however, he has not transferred his affection to a member of the opposite sex, and whether he will be able to accomplish this is, to my mind, questionable.) At any rate he is now able to speak about his experiences without emotion and laugh about the way he utilized and often provoked his attacks of palpitation in order to get the folks to call the beloved doctor.

I have had a number of cases of paroxysmal tachycardia that on study proved to be cases of anxiety, hysteria and in most of these infantile fixations were the underlying factors. It must, however, be remembered that not all cases of paroxysmal tachycardia are functional in nature, for in a number at autopsy an irritative lesion in the bundle of his has been discovered.

Attacks of palpitation and dyspnea are frequently complained of in cases of psychasthenia. Usually the presence of psychic symptoms such as doubts, fears and compulsions make a diagnosis easy. Occasionally, the physical symptoms are over-emphasized and it is only after close observation and questioning that the mental factors are admitted. I recall the case of a young mother, who was troubled by frequent anxiety attacks with dyspnea, palpitation, and precordial distress with consequent fear of heart trouble. No organic lesion could be discovered. It was apparent that she was exceedingly apprehensive and unhappy. Investigation of the temporal and causal factors of these attacks revealed the fact that they occurred usually when she saw or had to handle knives and when she was away from the baby. She would suddenly be seized with the fear that something had happened to the child, that it was dead. Only im-

mediate telephoning or returning home would relieve her anxiety. Through the method of free associations it was finally brought to light that she had become pregnant against her will and that on one occasion while handling a knife the thought had come to her; "I wish I could kill that life within me." She was immediately horror struck at entertaining such an awful thought and after a severe emotional struggle she succeeded in repressing the painful memory. In this way the affect, the feeling, was split off from the idea. Subsequently, whenever the complex was stimulated she became aware only of the emotional tension which discharged itself in the anxiety attack. That she should have an over-compensating love for the child was but a natural consequence of her repressed feelings of guilt. After these matters had been brought to the surface, and after talking over the situation and modifying her ideas of guilt, the difficulties vanished.

Attacks of palpitation and cardiac distress are also rather commonly encountered in traumatic neurosis; that is, the neurosis following accident; sudden frights, shell shock, etc. Anything that reminds them of the accident again calls to mind the fearful scenes and produces the emotional reaction anew and as a consequence tachycardia, dyspnoea, and other signs of fear are commonly encountered among them. We had quite a number of patients at Plattsburg who presented this symptom complex, but most of them recovered rather rapidly after the Armistice was signed, for the memory of the accident or the battle scenes are kept alive as long as there is danger of either being returned thereto, or of having to think about it continually because they are suing for damages. A settlement allows these memories to gradually become less vivid and to be finally buried under the mass of newer impressions.

Many neurotics and constitutional psychopathic individuals react badly to tobacco and to coffee. Often attacks of palpitation and cardiac distress can be eliminated by inducing them to give up these drugs. In these individuals reflex irritation from the gastro-intestinal canal, such as constipation, may also lead to tachycardia. It would seem that in these cases the vagus or sympathetic nervous system, or the heart itself, are below par or inferior and that therefore these drugs, as well as other toxins act upon them to an unusual degree. I dare say that many of you have observed tachycardia following in the wake of acute infections. I think that these also are cases in which, the heart is the inferior organ and it is therefore the first to give symptoms and signs when affected by toxins or emotional

stress. I have recently seen a number of such cases, which beside the palpitation, presented numerous other signs so characteristic of the long and persistent after effects of lethargic encephalitis.

Cases of cardiac neurosis emphasize the importance of visioning and treating our patients as personalities, as functioning human units and not of limiting our perspective to organic disturbances only. We must feel ourselves sympathetically into their problems, understand their difficulties, their maladaptations, and the reasons for their failures. And then, from our larger and more normal viewpoint, we can then point out the path to health and normality. We should, in the words of Hypocrites, be philosophers as well as doctors, in order to be good physicians. Now-a-days we would say psychologists, and it is by psychological means, by psycho-therapy, that we can best be of assistance to those unfortunates, much more so at any rate than by the means of drugs alone. Now-a-days we are so often told to use psycho-therapy but we are seldom informed of just how to go about it. In a general way I have already indicated various methods in speaking of different cases. More specifically I might say that when we have satisfied ourselves that we are not dealing with a serious organic heart disease in a case that presents other signs of neurosis, we should try to find the cause back of the cardiac symptoms, and then treat the patient accordingly. In some cases we may have to act as mediators of family strife or as instructors in normal sex hygiene. In other cases we can divert the patients into less arduous occupations, into a simpler and more congenial environment; or we can put them in touch with social agencies that can be of material assistance to them. Often when we have succeeded in gaining our patient's faith and confidence, simple, reiterated, positive assurance that they have no heart trouble, does wonders. Such direct suggestions, especially when coupled with indirect means, such as electricity or placebos, are often quite successful. Another means that I frequently make use of is the method of relaxation by means of which an hypnoidal state is frequently induced. In this state diverting and assuring suggestions are remarkably effective. Through it the patient is taught a way of overcoming his nervous tensions and of forestalling cardiac attacks in the future. Frequently, however, a more or less tedious mental analysis is necessary in order to get at the root of the trouble, to make the patient himself understand the mechanism of his neurosis, and through so doing make him finally independent of the physician. The subject is

a vast one, but one that deserves our fullest attention and study, for psychological understanding and a mastery of some of the methods of psycho-therapy best adapted to one's individuality puts in our hands an exceedingly effective weapon for combating functional

troubles and in assisting these cases of neurosis for which in the past we have displayed so little understanding and patience and who as a consequence have drifted in droves to faddist cures, religious healing cults, and into the hands of quacks.

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PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES.

V.—SCOPE. (Continued)

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In the previous issue of the Journal there was outlined some of the important matters that must be stressed in a program for the promotion of health or physical efficiency. These were the body's relation to, I. Food; II. Air; III. Activity; IV. Rest, and V. Bodily Poisons. Furthermore, it was pointed out that, VI. Sex Hygiene; VII. Mental Hygiene, and VIII. Prevention and Correction of Defects, should be included in all activities designed for the purpose of achieving this personal fitness. Under the last named caption, prevention and correction of defects, attention was called to the extensiveness of physical defects in young men as revealed by the draft examinations and in school children. Let us now show the prevalence of "subnormalcy" in that period of life when the individual should be of the greatest value to society and to country—early adulthood. The following is taken from a report of an investigation conducted by the Life Extension Institute:

"Among large groups of clerks and employes of banks and commercial houses in New York City, with an average age of twenty-seven and all supposedly picked men and women, only one per cent were found free of impairment or of habits inviting impairment. Of those with important physical impairments 89 per cent were, prior to the examination, unaware of impairment; 16 per cent of the total number examined were affected with organic heart trouble, 42 per cent with arterial changes, ranging from slight thickening to advanced arteriosclerosis, 26 per cent with high or low blood pressure, 40 per cent had sugar, casts or albumin in the urine, 24 per cent had a combination of urinary and other serious impairment, 47 per cent had decayed teeth or infected gums, 31 per cent had faulty vision uncorrected.

"In industrial groups examined, average age 33, none were found to be free of physical impairment or habits of living inviting impairment. And in this group 89 per cent were, prior to the examination, unaware of any impairment whatsoever."

One may well conclude that as the mid-period of life is reached the physically perfect man or woman is a rare finding indeed. And yet, it is during this period of adulthood that physical efficiency should be of the gravest concern to all. It is then that the economic burdens are at their

height. Furthermore, it is this age-period that is responsible, in the largest measure, for the proper up bringing of a rising generation. Moreover, society should receive its most valuable contributions from the men and women of forty. Again, our country's welfare and prosperity depends to a very large degree on the men and women of this mid-period of life. Truly, physical efficiency in the adult should be of paramount interest.

Among the important physical defects found, especially in the adult period of life, are certain disorders of the circulatory system and the kidneys. Generally, disturbances of the heart, blood vessels and the kidneys are associated. Abnormalities in one lead to regressive changes in the others. At any rate, this group of defects is found so frequently in our people that particular efforts must be made on the part of public health workers to combat it. The term "degenerative diseases" has been applied to this group.

IX. Prevention of Degenerative Diseases: The degenerative diseases include, in general, those retrogressive changes which take place in the heart, vascular system, blood vessels and the kidneys. Generally, the abnormal processes reach irreparable stages before the individual is cognizant of their presence. Such abnormalities as a failing heart due to degeneration of the muscle fibers which make up the heart, high blood pressure, hardening of the arteries—arteriosclerosis, apoplexy—rupture of a branch of cerebral artery resulting in the "stroke"—and degenerative changes in the kidneys whereby they can not perform their proper functions, are among the chief degenerative diseases.

Hardening of the arteries (arterio-sclerosis); a process in which the elasticity of the vascular wall is gradually substituted with an unyielding, inelastic tissue, thereby thickening the vessel wall and reducing its caliber and accommodation to heart action; is the most common and salient evidence that the body is undergoing retrogressive and degenerative changes.

Indeed, arteriosclerosis is the morbid structure upon which the degenerative processes in many organs begin and progress. A diffuse hardening of the vascular tree means increased resistance to the flow of blood. The heart is thereby overworked and the left ventricle increases in size. Again the blood vessels which supply the heart are included in this general arteriosclerosis. Thus, the heart can not receive its proper supply of

blood and nourishment. Consequently, it undergoes morbid changes which may even terminate in sudden death.

Likewise the functions of the brain, the kidneys, and other organs are impaired, and the cells constituting them degenerate because of the sclerosis of the blood vessels supplying them.

After all is said, longevity is a vascular question. "A man is only as old as his arteries." To a majority of men death comes primarily or secondarily through this peril.

The degenerative disorders are now becoming the objects of gravest concern to insurance companies and life saving agencies. There are many who hold that they are on the increase in the United States. They now stand at the very head of the list of causes of death in our country. The total number of deaths in the registration areas of the United States (77.8 per cent of our population) from the degenerative diseases for the year 1918 was 240,889. This includes diseases of heart, blood vessels and kidneys. Approximately, one death in every five was due to degenerative disorders. The role that heart disease and its associated group plays in causing poverty and adversely affecting the lives of entire families because of the crippling of wage earners, is inestimable. Assuredly, it constitutes a very substantial and serious factor in many millions of our population.

Every efficient public health program in the future must include strenuous efforts directed towards the prevention of degenerative disorders. While communicable diseases are frequently inciting causes of this group, however, the prevention and control of degenerative diseases will depend in the very largest measure on the individual himself. Therefore, combating and preventing this group must be an important feature of the health promotion program and people should become well informed regarding the dangers from, the causative factors and the measures for prevention.

It must be admitted that for the present we do not possess sufficient knowledge to explain satisfactorily all the causes and processes involved in the degenerative group of diseases. Furthermore, we have no specific curative measures. However, we need not be dismayed as adequate information is even now at our command to warrant definite procedure towards the prevention of this group as well as proper treatment to those affected. The following factors, we know, play important roles in the etiology:

1. Heredity. Osler has said: "The onset of what may be called physiological arteriosclerosis depends, in the first place upon the quality of arterial tissue (vital rubber) which the individual has inherited and secondly, upon the wear and tear to which he has subjected it. That the former plays a most important role is shown in the cases in which arteriosclerosis sets in early in life in individuals in whom none of the recognized etiological factors can be found. Thus, for instance, a man of twenty-eight or twenty-nine may have arteries of a man of sixty and a man of forty may present vessels as much degenerated as they should be at eighty."

Certainly this "family tendency" is an important one in the early production of arteriosclerosis.

Knowledge of the laws of heredity and the role it plays in human welfare should be a priceless possession of every one interested in human betterment. Not only is heredity definitely related to arteriosclerosis and other early regressive changes in vital organs, but it is, perhaps, of even greater importance as an etiological factor in insanity, in epilepsy and in the mental defects. Let us therefore, take this opportunity to expand on this subject, for assuredly the "workings" of heredity on human welfare are not sufficiently appreciated by the average human welfare agent.

At present, we are more or less prone to use this term—heredity—as an excuse for our failures to apply preventive and curative measures. In other words, to say, "This is due to heredity," is accepted generally as indicating there is nothing that can be done. Hereditary tendencies must not be accepted in this attitude of total resignation, but on the other hand heredity should be accepted as a challenge and incentive for genuine constructive public health work in the future. In fact, the general improvement of the human race will depend in the very largest measure upon the application of the laws of heredity. And as we progress with our public health movement and when more is added to our knowledge of human conservation, we shall find that heredity plays an ever increasing role in the welfare of mankind.

Every public health worker should be interested in and have knowledge of eugenics. Indeed, the eugenicist is a public health worker whose interests are chiefly directed towards the production of higher human efficiency in the generations that are to come. Already our public health interests and activities in the nature of child hygiene go into the prenatal period. We are now deeply interested in that important phase of child life from conception to birth. The eugenicist is concerned with the pre-conception period. Thus, we are gradually learning that we must project our interests far into the future in order to assure genuine constructive and efficient health work. In fact, eugenics may yet prove to be our most useful and effective measure in achieving the genuine public health objectives.

2. Strain. Prolonged muscular excess and organic strain doubtless contribute to arteriosclerosis. This condition is frequently found in such occupations as stevedores, where there is continually lugging of and tugging at heavy loads. Extreme and continual mental and emotional strain may be responsible for high blood pressure and hardening of the vascular tree.

3. Apathy. Inactivity and muscular disuse, with the accompanying faulty posture, skin disuse, etc., result in retrogressive and atrophic changes in the muscular system. Undoubtedly, the inaction and sluggishness which accompany the sedentary or lazy life contribute to weakening of heart muscles, which may be followed by definite retrogressive changes. One may even conceive of mental and emotional apathy, because of its relation to bodily apathy, as affecting the heart-vascular system. Therefore, daily exercise is a factor one must think of in preventing degenerative diseases.

4. Food. Overingestion, especially of proteids, has been proven to be an important factor in the causes of arteriosclerosis and others of the related group of degenerative diseases. There is a definite relationship between overweight and diabetes. Hence, the balanced diet is not only of inestimable importance in building up general physical efficiency, but it must be thought of as well in our efforts at preventing degenerative diseases.

5. Poisons. That various poisons deleteriously affect the heart, blood vessels and kidneys has been known for a long time. Alcohol, lead and other occupational poisons, caffeine—the coffee heart—excessive use of tobacco—the tobacco heart—are among the common bodily poisons that may be responsible for the early breakdown. Again, poisons of metabolic origin, autointoxin, hormone excess—abnormal secretion and activity on the part of certain ductless glands—adrenals, are other factors.

6. Infections. One source of common and constant poisoning resulting in dangerous and irreparable

able retrogressive changes in blood vessels and vital organs is that generally known as focal infection. Bad teeth, gums, tonsils, infected sinuses, chronic abscesses, etc., are examples of focal infections. These may not in themselves be serious enough to cause any conscious inconvenience to the person, but the bacteria harbored by the diseased tissue and the toxins liberated pass into the blood stream and are thereby carried to other organs. Secondly, foci of infection are set up as a result. We are now beginning to recognize that most joint affections are due to this process. When a person suffers from "rheumatism"—arthritis, one of the first concerns of the scientific physician is to hunt for a diseased focus of infection. He bears in mind the associated quadri-dangers, tonsillitis, rheumatic fever, endocarditis and chorea. He examines the gums, teeth, tonsils, etc., with a view of explaining the joint pains. After removal of the focus infection the joint affections frequently disappear as if by magic.

The heart may be permanently damaged, thereby shortening life, as a result of bacteria escaping from a primary infection, getting into the circulation and lodging on the heart valves. Here the bacteria set up processes which affect or even destroy the valves. Bright's disease is frequently caused by focal infection in the mouth. High blood pressure is often relieved by ridding the body of some diseased and infected focus. Many hold that appendicitis, ulcers, gall-bladder troubles may have their origin in focal infections. If the focal infection processes remain unabated for a long period then the irreparable regressive or degeneration diseases may set in.

In our efforts then to live a long and healthful life, one of our first concerns should be to determine the extent to which these minor ills are present. Once we penetrate beneath conventional acquaintance we almost invariably learn of some defect that may be a focus of infection.

General infections are frequently the source of "heart-blood vessel-kidney" disturbances. The acute infectious diseases of childhood—scarlet fever, diphtheria, etc.; pneumonia, typhoid fever and syphilis are among the chief instigators in this group. Proper care and treatment during the course of these diseases and during convalescence is of utmost importance in view of the imminent dangers to the organs of circulation and excretion.

The degenerative group of diseases are so frequently the sequela of bacterial infections which have irreparably damaged heart valves, heart and blood vessel walls and kidney cells. Some prefer to place these primary injuries, so often found in children and due to bacteria, in a class by themselves and the later more slowly regressive or degenerative changes found in adults into another group of diseases. This distinction is of pathological interest. However, from the public health standpoint of combating and preventing "heart-blood vessel-kidney" disorders, it is not essential to make this differentiation. Combating and preventing heart disease and its associated degenerative diseases are essentially problems of education of the masses and of periodic physical examinations. (The importance of the latter will be discussed in the next issue of *The Journal*). Our efforts directed towards the prevention of "heart-blood vessel-kidney" diseases must begin with early childhood, because of the high frequency of damaged hearts early in life. Therefore, it is the parent whose interests must be solicited and obtained. Sobel has outlined the following method of procedure with children during the pre-school age.

1. The need of more frequent physical examinations during the pre-school age period, and the cor-

rection of remediable physical defects. Parents should be urged to have these children examined by private physicians, hospitals, clinics, dispensaries, in a special "pre-school age clinic"—a number of which have already been established in New York City—or at the baby health stations of the Department of Health and other agencies.

2. Removal of abnormal and diseased tonsils as a potential source of rheumatism, and the most frequent cause of cardiac disease in children.

3. Greater attention to nasal hygiene—teaching the children, wherever possible, the proper method of blowing the nose and using the handkerchief. Removal of adenoids and correction of other defects of nasal breathing.

4. Maintenance of a proper standard of nutrition, through education of the parents in the proper purchase, selection, preparation and care of food with regard to the needs of growing children; regular periods of feeding; establishment of good health habits—mastication, sleep, ventilation, exercise, rest, fresh air, avoidance of tea and coffee, etc.

5. Emphasizing that recurrent tonsillitis and enlarged tonsils are often forerunners of rheumatism and cardiac disease.

6. Education of the public as to the dangers of cardiac complications following the infectious diseases of childhood—the need of prevention, the importance of early and proper isolation of the affected person, the value of prolonged rest in bed during the course of the disease, and the advisability of very gradual return to daily routine and exercise after these diseases, and indeed after every febrile disease of whatever nature.

7. Further education in oral hygiene during the pre-school age period—daily cleansing of the mouth and teeth, correction of dental caries and defects.

8. Prevention of respiratory diseases in early childhood through publicity measures heretofore outlined; dangers of coughing, sneezing, spitting; contact with other members of the family; proper ventilation in the home; danger of mouthing toys and other articles; avoidance of wet feet, exposure, fatigue, etc. These should be emphasized especially in the case of families forced by necessity to live in basements which come perilously close to being cellars.

9. Greater regard for so-called "growing pains" which are also potential signs or forerunners of rheumatism.

10. Improvement of the emotional and temperamental stability of these young children through: (a) Education of the parents as to the importance of environment and home training. (b) Proper food, hygienic and living conditions, personal and home hygiene. (c) Modification of the kindergarten system. At present the transition of the child from home to school is too sudden. He is often bewildered, with the result that he frets and worries and becomes discontented or unhappy or worse. He should be taken more gradually into his new environment. The kindergarten registration at the present time is too high for one teacher to supervise, and the kindergarten should be made to conform nearly to the Froebel idea.

11. There should be more open-air play, and certainly more open windows in the classrooms than is the case at present. Improper kindergarten conditions predispose to fatigue, depression, emotional instability, lack of resistance and malnutrition. If children must be sent to school at an age as early as five or six years, it seems to the Committee to be a community responsibility that they should be placed under the most favorable conditions possible.

The Journal

OF THE

Michigan State Medical Society

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JULY, 1922

Editorials

THE 57TH ANNUAL MEETING

Our 57th Annual Meeting has gone down in history. We prophesied a great meeting with noteworthy scientific features, pleasures and Flint hospitality. They were all fulfilled to a full degree. The universal expression of the men in attendance was one of satisfaction and the remark, "The Best Meeting We Ever Held." That is our own observation and conclusion.

The House of Delegates conducted its business expeditiously and effectively. It unanimously voted to support those new and constructive plans that were adopted at the St. Louis meeting of the A. M. A. It recommended the increase of the psychopathic rooms in our state and other hospitals so that those with mental disease might receive more scientific study before being pronounced insane or criminals. It appointed a committee to inspect the Roosevelt Hospitals at Camp Custer and report upon its management and professional activities. There seems to be a feeling that a certain small coterie is endeavoring to institute pernicious measures in the administration of that hospital that is supported by state funds and prevent it being of the greatest possible benefit to our ex-service men.

The proposed new constitution and by-laws adoption was postponed for one year. In doing so the stage was destroyed for a possible argu-

mentative battle which had evidently been planned by some delegates raising purely technical points and discrediting the integrity of men in the administration of the duties of the office to which they would be elected. In consequence of the postponed action there was no vestige of disagreement.

In our succeeding annual meetings the House of Delegates will devote the entire first day to its deliberations, thereby giving its members more opportunity to attend sectional meetings. It is regrettable that all the delegates elected by county societies did not attend to their duties. A good many county societies were not represented. We would urge that in the election of delegates county societies insist upon selecting men who will accept the responsibility of county representation and acquit themselves of their duties.

Dr. Moll of Flint was elected speaker of the House and Dr. Balch of Kalamazoo, vice-speaker.

President Kay's annual address is published in this issue. It is one of the most constructive addresses we have heard. We do urge that every member will read it, ponder upon it, and take to himself the application of its recommendations. Surely, if that is done, our professional relationship with each other and the public will become more honorable and noble.

The inspiring address of Dr. Burton, President of the University of Michigan, was not only filled with inspiration, but also set forth his and the University's attitude to the public and the profession of Michigan. Those who were in doubt of his sincerity or hypercritical of his activities and plans before hearing his statement must have received a new light upon the University question and its relationship to the profession. We are indeed fortunate in having such a capable man at the head of our state institution at Ann Arbor. We shall publish Dr. Burton's address in a future issue, just as soon as we receive the reporters' transcript.

The Council conducted its routine business. It directed the Secretary to purchase lanterns for each section, so that the annual confusion regarding the obtaining of lanterns will be done away with and satisfactory lanterns be provided for each section. Dr. A. L. Seeley was elected as Chairman and Dr. H. E. Randall as Vice-Chairman of the Council. The Council will hold its mid-winter session in Ann Arbor.

The scientific program was splendid and well attended. We are very well acquainted with the section reporters who report the section meetings of the A. M. A. and other state societies and they commended the papers and discussions very highly, stating that the par-

ent national organizations never put on better symposiums. Our members also were loud in their praise. The section officers may well be proud of the expressed approval that attended their labors in arranging their programs.

The members of the Genesee County Society did themselves more than proud by their entertainment which excelled their previous high record. The Smoker with its vaudeville features and boxing and wrestling bouts, the President's reception with its specialty dancers and singers and splendid music, the automobile rides, the visit to the automobile factories, the informal receptions and dinners, the genial hospitality will ever make this meeting memorable. The flint stone arrow head may be the symbol of the town and its doctors, but it does not depict their hearts and cordiality which is mellow, warm and sincere. Would that the spirit that characterizes the members of the Genesee County Society existed in all our component societies. We are indeed grateful for all that our Flint brothers did and assure them that the success of the meeting was largely due to their spirit and hospitality. The meetings were all held in the Durant Hotel and to its genial manager who was up early and late to attend to our comforts do we also owe and express our thanks.

You stay-at-homes, who were by actual necessity compelled by circumstances to remain at home, we regret with you that you could not participate and receive the inspiration, profit and pleasure of this meeting. The other stay-at-homes are left just that much further in the rear of their professional brothers who were present. While the home-birds made a few extra shekels, their fellows who did attend, are going to far out-distance them in their professional activities and will rise higher in their community's estimation. No member who fails to attend his county and state medical meetings can ever hope to stand in the front ranks of doctors in this day of progress.

The minutes of the meeting will be published in full in our next issue. It was impossible to secure the stenographers transcript before going to press. Again we say—men of Flint, you did yourself proud and we are grateful.

A. M. A. MEETING—ST. LOUIS

The 73rd Annual Meeting of the American Medical Association that was held in St. Louis May 22-26 will go down as an epoch-making meeting. The advance strides made in the establishment of a Legislative Bureau at National Headquarters in Chicago, the establish-

ment of a medical lay journal that will enlighten the public in regard to scientific medicine and which will be nation-wide in its distribution, the steps taken to improve medical education curriculums, and the planning of greater activities on the part of various Councils are the outstanding features.

The House of Delegates expedited its work and gave approval without dissenting discord. There were no wrangles, filibusters or dissensions. We would that we could give space to the reports and reference committee's action that occupied the attention of the delegates. We refer our readers to the Journal of the American Medical Association and urge that our members familiarize themselves with the activities of our national Association. If more of our members would secure for themselves such information there would be less unwarranted criticism. It may be stated that the officers and Councils and the Board of Trustees are actively and aggressively concerned with the interests of the individual practitioner and are persistently engaged in furthering his professional welfare. What is needed is more whole-hearted co-operation on the part of our members and a larger percentage of doctors who will affiliate themselves as fellows and members of our national body. The parent association may owe you something, but you in return owe it not only membership, but also individual support in the furtherance of its plans and purposes. As you subscribe this support, just in that measure will you secure returns that will produce personal dividends.

San Francisco was chosen as the place for the holding of the 1923 meeting. Dr. Wilbur of the Leland Stanford University was chosen as the President-elect. Your editor was honored by being elected to the office of Speaker of the House of Delegates. Michigan was ably represented by its delegates, Drs. Hornbogen, Wilson and Brook.

The scientific program was of high scientific interest and profit. It held the attention of the some 6,000 doctors who registered. The President's address was a masterpiece and a splendid plea for the ideals and activities of the Association.

The hospitality and entertainment on the part of the St. Louis profession was cordial and enjoyable with nothing left to desire. All in all it was a most successful meeting. On another page, in the minutes of our Flint meeting, the reader will find a more detailed report submitted by our delegates.

We desire once more to urge our members who are not fellows and members of the American Medical Association to join. All that is necessary is to send your application to the State Secretary. In return for your mem-

bership, you will receive all the benefits that are being secured for you by the activities of our national officers and The Journal of the American Medical Association which is the peer of all medical journals and which is mailed to you each week. You cannot afford to remain unaffiliated. You owe it to your associates to unite and support this national association. File your application now.

PRESIDENT W. T. DODGE

Without opposition and by unanimous vote, Dr. W. T. Dodge of Big Rapids was elected president of our Society for the ensuing year. In selecting its president for the coming year, the Society has justly recognized one who for over 20 years has been an active, constructive working member. One to whom we owe much for his labor and time devoted to the welfare of the profession in Michigan.

William Temperance Dodge, was born on April 2, 1860, in the village of Orangeville, Barry County, Michigan. While still in the public school, his parents moved to Imlay City, at which place he completed his high school studies. He entered the medical department of the University of Michigan and received his degree in Medicine from that University in 1880. His medical education was continued in a post graduate course that he pursued at Bellevue, New York, during the years of 1881-1882. In 1882 he located in Marlette, Mich., and practiced there until 1890, when he moved to Big Rapids, his present home.

The receipt of his diploma did not terminate his quest for medical knowledge. Dr. Dodge, has been a progressive student, and has ever kept abreast of the advancements that the years recorded. A splendid library is his, he has been a studious reader of current medical literature; he has made many visits to the clinics of this country as well as to some of those abroad. He has applied his knowledge in his daily work and his observations and experiences have formed valuable contributions to our literature in the articles that he has written and the discussions he has participated in at our local and state medical meetings. As a surgeon, he holds a splendid reputation and much of his time is devoted to consultation practice.

When our state Society was reorganized in 1901, Dr. Dodge was elected Councillor for

the Eleventh District. For twenty years he has been a member of the Council and for a number of years served as its Chairman. It was during these twenty years that he contributed so largely to the Society's welfare by his judgment in the maintenance of constructive policies and the solution of present problems. No man has contributed more time, or labor to the Society and its interests than has Dr. Dodge.

Dr. Dodge was one of the founders of the American College of Surgeons. He served one term as member of the State Board of Registration in Medicine. He is a member of the Association of Military Surgeons. For a number of years he was a surgeon in the Michigan National Guard and finally



WM. T. DODGE, M. D.

was its Chief Surgeon. In 1897-98 he was Mayor of Big Rapids. At various times he has held the highest offices in the Masonic lodges of Big Rapids and of the Commandery. During the World War, he was

called to active duty and assigned to the Base hospital at Camp Sherman. He was Chief of the Surgical Service of the base hospital at that camp. As such, he won the confidence and the esteem of the officers at Camp Sherman and maintained a surgical efficiency that was frequently commended by his superiors and by the Surgeon General's office. Upon his discharge from the service, he returned to his practice in Big Rapids, where he enjoys the confidence and love of the people whom he has so long and faithfully served. He has been an active worker in the civic affairs of his community and has been the recipient of many honors from his fellow-citizens.

The law of life is the law of service. Dr. Dodge has exemplified that law. We hold him successful who has found or conquered a position in which he can bring himself into full play. Success is perfect or partial, according as it come up to, or falls below, this standard. And be it remembered what a man is—not what a man does—is the measure of success. Those who know Dr. Dodge, and his friends are counted by the hundreds in the profession, point to him and hold him as a man among men, because he typifies success.

As our President for the ensuing year, we go forth under a capable leader. We predict that by the exercising of his presidential authority, our Society will attain greater advancements, record greater accomplishments and establish policies that will enhance our combined interests. We pledge him our members' whole-hearted support.

FLINT TABLOIDS

The following are observations gathered while mingling among the doctors present:

Clear sky, hot sun, humid breezes caused a porous activity, but in no way lessened the enthusiasm. The weather was only a matter of relativity anyway.

The hotel arrangements were ample and modern. The service was very satisfactory. The manager was ever alert to attend to our comforts and there was no sign of extortion. Flint is fortunate in having such an efficient hotel man. Do they still call him "boniface?"

Dr. Evers, chairman of the Exhibitors and his committee deserve unstinted praise. They had a splendid class of exhibitors. This committee by persistent hard work, for which they receive scant thanks from those who are not aware of the work involved, sold exhibition space to the amount of \$1,000. This is the largest return we have ever received and goes

to defray the expense of the annual meeting, thereby obviating the drawing upon society funds. We congratulate and thank the Committee for their wonderful work.

If the state society ever creates the office of Official Entertainer, Dr. O'Neil, chairman of the Entertainment Committee, will be elected for life. His committee members were equally efficient.

President Miner and Secretary Marshall of the Genesee Society were omnipresent. They were ever ready to see that nothing was neglected.

Dr. "Shorty" Stewart, (with apologies) was a constant mixer and was alert to the needs of all.

Councillor Randall and his associate, Dr. Blakely even forgot meal hours. Dr. Randall gave a most enjoyable dinner to the Council.

Women, sure they were there. Eighty-seven of them and they did not interfere with their husbands, as all good doctors' wives have been trained. They had their own entertainment features. The only time they sought us out was when they ran short of money. Let's have more of them at our next annual meeting.

Mr. Holler, Secretary of the Flint Chamber of Commerce gave a splendid inspiring talk at the County Secretaries' luncheon. Next year we are going to invite him to address the general session.

Dr. Olin West, Field Secretary of the A. M. A. was present and addressed the Council and the House of Delegates. Michigan took him to heart because he won us and we pledge him our support in his work.

Dr. Hornbogen of Marquette was re-christened. The papers re-named him Dr. "Hornblower."

The spirit of the meeting was fine. It existed in every nook and corridor of the hotel. You simply could not escape it.

Dr. Bird and his thirty-seven golf enthusiasts had a splendid tournament. Let us have such a match each year. Next year we are going to so arrange our work that we can cop the prize. The challenge goes forth now. Until then work for "birdies" and "eagles."

We didn't see any policemen in Flint.

Wonder if they have any? The Mayor, and he is some mayor, simply turned over the city and sent the police officers on a vacation. Doctors don't require watching.

The "Best Ever," "Nothing Like It In Years," "Arrangements Ideal," "A Live Bunch of Flint Docs," "The Best County Society In The State," "Never Saw Such Hospitality," "Scientific Papers and Discussions Never Equalled," "I Am Coming Every Year"—these and many more similar expressions were heard on all sides.

Dr. Burton claims he has red hair. Maybe. Anyhow we will concede he has sand in his gizzard. Then too, though he is a preacher, he has a fine line of cuss words. He did not tell us where that female ticket agent who called him a "kid" was stationed. We want to look her up, maybe she will rejuvenate some of our members.

President Dodge. The Grand Old (?) Man of the Profession in Michigan. A well deserved honor and by his election we do honor to ourselves. The only thing that can be said against him is that he plays a rotten game of golf and has a choice flow of language on the putting green.

After the crowd had departed a heavy rain-fall and thunder storm occurred on the last day—about 8 p. m. The slate is clean. Thanks, Men of Flint. When can we come again?

ARE YOU FAIR TO YOUR PATIENTS?

We hear much about the state entering into the practice of medicine. We are burdened by criticisms pro and con. Group practice is receiving a share of criticism. Health officials and government welfare officers are being condemned for practicing medicine and providing treatment. The middle man, the man of ordinary average income, is voicing a cry of distress because he is unable to pay the price that he is being called upon to pay for the medical care and treatment of himself and his family. Welfare agencies and so-called "Uplift Movers" are listening to his call of distress and are seeking to provide means whereby his burden may be lifted. The blame is being laid at the door of the medical profession. Instances are being cited and they are multiplying in their number. Hence the inquiry, Are You Fair to Your Patients?

We confess no small degree of doubt. We are not in the position to boldly come forth in denial of the allegation that we are unfair.

We are unable to assert with emphasis that the fault is not ours. We are citing instances that are being cited to us from time to time as demonstrative that doctors are not fair to their patients. In doing so we are conscious of the argument that we have large expenses, that we have invested time and money, that other professions charge what the traffic will stand, and similar arguments. On the other hand there are social and economic factors that likewise have a bearing and must be considered. It is admitted that we have two extremes of the argument and the question that presents is, what is the fair solution without imposition upon the doctor and without favoritism to the lay individual who requires our services. To arrive at that conclusion and to establish that principle seems to be the solution desired. How it may be attained we are not prepared to state though we may advance a few suggestions for the purpose of opening the discussion in the hope that we may cause a state-wide consideration of the problem. Before doing so let us first cite some of the instances that have recently come to us and which are cited as basis for the above captioned allegation.

A man, family of five; earning \$200 per month. Is charged \$125 for a tonsilectomy plus \$21 for hospital bill. Six weeks later school doctor says his other two children require removal of their tonsils. Doctor says he will do the two for \$200 plus hospital bill of \$42. Thereby causing him an expense of \$388, almost two months salary in six weeks for three tonsilectomies. He still owes on a doctor bill six months previous for wife's confinement for which he received a statement of \$75 plus an \$82 hospital and nurse bill. A total of doctor and hospital expense in six months of \$545, over one-quarter of his years' salary and possible additional doctors bills for the remaining six months. Query: Was this man soaked? In comparison to the confinement did the tonsilectomies require more skill and so command greater fees? Is \$125 a fair fee for a tonsilectomy to this man? We recognize there are two sides to the question, but which is the fair one that is going to enable this man to maintain his independence and also permit the doctor to attend him as a private patient and not as one in a dispensary or state controlled clinic? That is the problem.

A man, with family of four; earning about \$2,200 per year. Is taking care of his father. Eventually a diagnosis of cancer of the prostate is made in his father's case. The disease is well advanced with well marked metastasis. The family doctor advises against operation and gives as was right, an unfavorable prognosis. Along comes another doctor

who states that an operation might cure the father and induces the son to permit him to operate. The operation is done at home, though a hospital is but 10 blocks away. This doctor did nothing more than open the abdomen for the mass was not removable and the liver markedly involved. The patient dies in 48 hours. A bill for \$175 plus nurses and other expenses is sent. Was the operating doctor fair to the patient and to the son? Did he operate solely for an unjustified fee? Will this son not be justified in demanding a state controlled clinic, where he can obtain freedom from such imposition?

We can continue citing numerous similar incidents, but to do so would consume more space than is warranted at this time. Every doctor can cite a dozen or more such instances where medical services have taxed the individual far beyond his ability to pay. Yes, we know that some will say that these cases fell into the hands of the wolves of the profession. We agree, but how are we going to prevent the constant repetition of such instances when the lay individual does not always have the opportunity or ability to separate the sheep from the goats? You and the rest of us suffer and are largely judged by the travesties perpetrated by the wolves. We advance the following solution that was suggested the other evening while discussing the problem.

1. That our State and County Medical Societies agree upon what is a fair minimum charge for professional services that may be required by individuals who have but a moderate salary and compose the great, so-called middle class of people.

2. That through the advertising columns of local papers these prices or charges be announced.

3. That the public statement be made that the members of the county medical society will base their charges upon that minimum schedule.

4. That the County Medical Society appoint an Appeal Committee to which a layman may appeal for the adjustment of any account over which there is any dispute as to exorbitancy. That the doctor shall abide by the decision of this committee as to the just charge he shall make for his services.

This suggestion may not be perfect, but it has considerable merit. It is worthy of serious consideration as is the whole problem. One thing is certain and that is that we as a profession must solve this problem. If we do not and neglect or ignore it, ere we know the state, the county, the city, will, through its health officers or employed individuals, establish a state, county or city controlled clinic that will supply to the middle class high grade

medical and surgical as well as hospital care. Once a clinic is established, it will rapidly extend and will do the bulk of the professional work of the community. There will be available plenty of doctors who will accept such staff appointments, make no mistake of that.

Remember also that the tendency of the day is that when any group of citizens cannot afford to purchase certain privileges, services or needed comforts the demand goes forth that the state supply to them that which they cannot now obtain. The state and county usually comply with the pressing demand of its citizens. We are fearful that we are on the eve of such a demand from the people. What are you going to do about it? We invite your discussion.

ADDRESS OF THE SPEAKER, DR. F. C. WARNSHUIS*

Members of the House of Delegates:

There is no duty or privilege more worthy of our consideration, at this the opening of our first session, than fittingly to express the honor and tribute we owe to those who have left the world better than they found it. On Oct. 21, 1921, just as the sunset waned, his life strings parted and Dwight H. Murray passed from this world to that other existence, we trust of light and love and joy. His achievements and service have been recorded in the archives of our Association. We pause at this time, in solemn reverence, to give expression to sentiments that cannot be adequately imparted in the cold type of the printed page.

It has been the privilege of many of you, as well as mine, to have known Dr. Murray for a decade or more and to have been associated with him in the activities of this House. During our periods of contact, in our discussions and deliberations, there was generated a feeling of respect and esteem for him who has departed. Unassuming in attitude and manner, void of all avariciousness, farseeing in calm, deliberate judgement, thoughtful and ever considerate of the opinions and rights of his fellow-man, eager to perceive wherein and whereby he might contribute to the greatest good of the majority, shunning the snares of the schemer and with a continued manifestation of a studied desire to subscribe his bit to the welfare of our Association, Dwight H. Murray rose to and attained a place among us that commanded the recognition that was manifested by our electing him on two occasions as Speaker of this House.

Thus, did we commune with a fellow-man

*Speaker's address, House of Delegates, American Medical Association.

whose memory we revere and cherish, whose death we mourn and whose demise has deprived us of his guiding wisdom and leadership.

There are five outstanding conditions that are related to our Association's individual members' welfare that present themselves for definite action at this session. They are:

EDUCATION OF PUBLIC REGARDING SCIENTIFIC MEDICINE

Medical journals, during the past year, have devoted much space to comment on the future of our profession, its relation to the public and state, its organizational activities, the lack of united effort and to an implied disagreement as to representation, policies and executive leadership. There has been a preponderance of criticism characterized by a lack of constructive recommendations. It may be presumed that these discussions and expressions reflect, to a degree, that a readjustment is at hand. Their authors apparently are unable to perceive definitely the direction or scope of our future relationship in the civic, industrial, social and communal intermingling. There is evident a needless anxiety over our present position and an unwarranted desire to bring about a spontaneous change, and within a space of a few months establish a new basis and policy for our interrelation and contact with the public and its institutions. Little cognizance is seemingly taken of the fact that stable realignments rarely follow revolutions; that reforms for the betterment of conditions are not, as a rule, the outcome of inconsiderate and injudicious precipitate action. He who in calm reflection ponders on the changes that are being gradually evolved in the affairs of life realizes that we as a profession must mold and build anew certain channels of intercommunication for the future and greater application of scientific medicine to the requirements of the people. That which we have, that which we practice, is not all obsolete and inadequate. No need presses for revolutionary action in regard to the present policies of this organization. Reconstruction and reorganization are, however, necessary in certain instances. Some of the advice, some of the proposed innovations and some of the suggested policies merit deliberate consideration; others are not worthy of even passing recognition. I am certain that your judgment and wisdom will manifest itself and find expression in the enactments of this House in the solution of these problems.

There is a palpable ignorance on the part of a large number of our members in regard to our organizational activities. They do not know what has, is, or will be achieved by delegated councils, committees and executive of-

ficers. This accounts for much of the criticism that has been made in ignorance and possibly inadvisedly. There is a manifest ignorance, likewise, on the part of our members in regard to what society and government as well as business have accomplished, is planning to accomplish and the policies they are pursuing. Again, there is a failure to recognize that the public's misunderstanding of our profession, the people's misconstruction of our purposes and their misinterpretation of our principles are due largely to their lack of information regarding scientific medicine, its achievements and its potentialities. It is our neglect and failure to keep them abreast of our progress and our failure to impart to them that which we have achieved that has created this situation. The public is twenty-five years behind the times in its information in regard to the scientific physician and his work today. For this we are largely and solely culpable, for we have been so concerned in the solving of our scientific problems, our research, our observations and the application of our principles that we failed to pause from time to time to impart to the public the progress made, and the results that were being attained from the application of our proved principles and methods. We were content and too willing to remain behind a curtain of reserve which today we recognize is an error, and to correct it is our pressing concern.

I believe that no more epoch-making action can be taken by this House during this session than to adopt a plan of activity that will undertake the education of the public and acquaint it with the established tenets of scientific medicine and the methods utilized by physicians in the prevention, eradication and treatment of human ills. This educational work must be based on the proposition that, in a democracy, health is a public concern. Sound public policy and private conduct will result only from sound public and private opinion and this will come only by getting to the men and women of this nation an adequate knowledge of the ascertained facts in regard to health and disease. We are only concerned with education and must rely upon the convincing power of the truth. We should send out teachers, not advocates.

We have a Council on Health and Public Instruction. I am not unmindful of that which this Council has accomplished. However, I cannot but feel that we have permitted its activities to remain subservient to other organizational interests. We have not sufficiently concerned ourselves with the true purpose and object of that Council and have not imparted instructions or provided funds whereby it could engage in a persistent, suc-

cessful, educational campaign. With due respect to the work of our other Councils, we have made this Council, the one which possesses the power to maintain and enhance our professional standing in the sight of men, the object of our least concern and interest. Into its deliberations there is not brought, except at annual formal conference, the trend of the advance or the difficulties of the first line of contact, those who attend at the bedside of the sick. In theory only it is fair to assume that its personnel receives the specter of the problems of the active practitioner, but has no direct contact with him or the demand that is made on him by the public. Time will not permit going into further detail. I am attaching hereto, for the Reference Committee's information, additional facts pertaining to the needs of this Council.

Upon deliberate and considerate thought I recommend that the following action be taken:

1. Enlarge this Council on Health and Public Instruction to ten members, and not less than five of its members to be active practitioners.

2. That the Board of Trustees be directed to make an appropriation for this coming year of not less than \$75,000 to defray the expense of an active, constructive plan of public health instruction. That the Trustees, and again I am not unmindful of or discrediting the work of other Councils, if financial conditions make it imperative, be requested to cut other appropriations, retrench on the expense of or even discontinue the publishing of subsidiary medical journals and so clear the presses of the Association for service to this Council. Greater need exists for public health education and the acquainting of the public with the facts regarding scientific medicine than for certain medical journals that divert our activities. We must become more than a publishing house.

3. That the House of Delegates provide for an advisory committee to this Council, consisting of the President, the Secretary, the General Manager, the Speaker of this House and five delegates, no two of whom shall come from the same state, to meet not less than every three months for the formulation of plans of activity and the institution of field work that they and this Council should be directed to undertake with the greatest, safe expediency.

Many of our problems, problems that are creating so much of the unrest in and out of the profession, but all relating to scientific medicine, will be solved when we impart to the people the knowledge which they do not now possess. Hence the demand, the urgency, the need for the discontinuance of further temporizing methods, studies, surveys and theoriza-

tions. I am firm in the belief that this is our need and that the responsibility for the undertaking of that duty rests on you if you are concerned, as you must be, with acquitting yourselves of the trust imposed in you by those whom you represent.

HEALTH INSURANCE—GROUP MEDICINE

Compulsory health insurance never will and never can become an American institution. As our campaign of public education broadens, this fantastic, un-American machination and the fancies of its proponents will fail to arrest legislative attention and consideration or draw unto it public demand and support. There are other forms of medical practice, instigated, conducted and extended by individuals, groups and health and lay agencies that encroach on and mitigate against the interests of the individual doctor. Some of them merit endorsement and support. Others, however, require our emphatic and perhaps drastic denouncement. They are dependent, for success and extension on the members of our profession. Regrettably we recognize that many physicians, thoughtful only of self, place their services at the command of such agencies. Such practices must not be condoned.

As an organization we have a direct obligation to our members. Likewise our members have a direct obligation to the Association and to their associates. It is unreasonable to expect that your officers and committees can attain results without your co-operation and support. You cannot sit in the galleries and in inactive attitude expect the few, by their work in the arena, to vouchsafe to you freedom from trespass on your rights. Precedents and rules of guidance for each individual must be established and must be observed by the whole without exception or favor.

A code of ethics was formulated by our forefathers for their and our guidance. In certain respects the changes that the years have brought have rendered obsolete or inapplicable some of its rules and precepts. Group medicine and group clinics as well as state medicine have come and will grow. It is for us to revamp and revise and reconstruct that code of ethics so that it will today apply to the individual physician and specialist, and, further, that it will exert a supervising direction and control over these groups of associated practitioners and medical health officials.

To that end it is recommended that there be created a revising committee that will perfect such a revision of our established code and submit their report at our next annual session.

THE TRAINED NURSE AND THE NURSING PROBLEMS

During the past few years, and particularly the last two years, there has been much discus-

sion and considerable criticism by both professional and lay individuals of the trained nurse, nursing service, training school, curriculums for nurses and the nurse in health and industrial work. A study of these discussions, as well as personal experiences, causes one to feel that there is immediate need for the consideration of the entire subject of training schools, nursing education, hospital and graduate nursing service and the nurse's relationship to the patient, the doctor and the public. There is an inter-relationship that we cannot ignore. Our interests, the interest of the public and the future interest of the nurse, demand that we concern ourselves with this problem and expedite its satisfactory solution.

I am not unaware of the surveys and findings made and reached. I am also familiar with the attitude of certain nursing organizations and groups, and also with the ideals sought by lay leaders and organizations. Our profession has yet given no definite expression of its opinion and judgment. The time has come for us to do so and the public is desirous of receiving our findings and recommendations. I therefore recommend that you create a special committee, to be appointed by the President, with the advice of our Trustees, to make a thorough survey and study of the problems and submit its report and recommendation at our next annual meeting.

In connection therewith hearings should be accorded to all groups concerned in the providing of nursing assistance in the prevention and treatment of disease. Our Association should assert itself in formulating an acceptable status for the trained nurse, and the educational fundamentals requisite for her work of service.

SEMI-ANNUAL MEETINGS OF THE HOUSE OF DELEGATES

Some discussion has been engaged in as to whether our House of Delegates might not well meet at a time other than that during which our scientific assembly meets. To do so would be a serious error and would disassociate our membership solidarity. The question is naturally injected, Are not the affairs of our Association of sufficient moment and importance to warrant two meetings a year of this House? Would it not be advantageous, would it not materially aid in the solution of our problems and increase the scope and value of our organizational activities to hold a midwinter three-day session at our headquarters in Chicago? It would seem that such a plan would be advisable and result in maintaining a continuous scope of associational endeavor with no letup during the final two months waiting to ascertain what this House

will do at its annual session. The suggestion is submitted for your consideration.

POLITICAL ACTIVITY

Legislatures, Congress and civic governments will continue with greater avidity to concern themselves with the problems of health and the work of physicians and health agencies. Health officers and health agencies are going to extend themselves to broader fields and are not going to be overconsiderate of the doctor unless he is represented in their councils and causes them to be not unmindful of his rights and work. It is with no little regret that we observe this tendency on the part of these health officials, some of whom even seek to warp to their support the prestige of our Association. When not successful they seek to attain their ends by national and state legislation. Our interests and that of the individual doctor, no matter what his location or position may be, must be conserved. We have too long been silent and permitted the individual doctor to remain the undefended party in the encroachments made on his professional labors by legislatures, Congress, insurance corporations, industry and organized meddlers of so-called "uplift movements." The individual practitioner's interests warrant our deepest concern and his future welfare merits our solicitous and combined assistance. Willing as he always has been and will be to contribute his 100 per cent to the welfare of mankind, he should never again be made the victim and the object of such enactments as the Harrison Law, the Medicated Alcohol Rulings, the Sheppard-Towner Bill, and similar legislative enactments without our standing by his side and presenting in his behalf our associational influence and arguments for his protection against inadvised imposition and unjustified attack. Representation must be secured and made in his behalf for his individual interest is our collective concern:

Provision must be made to present his individual and the profession's collective rights and interests at all such future hearings that such bills in Congress may necessitate. In addition, this Association should and must aid our component state organizations in legislative matters arising in different states that affect the interests of our members residing in those states. Let us remember that what is stirring the world's heart, changing the face of the times and representing the form and working of the age is that intelligence, that sentiment, those thoughts and opinions whose written and spoken word is power. Such power is ours provided we formulate an acceptable ideal that will impregnate the activities of our associates in the readjustment of

medical contact with the people who compose our constituency.

Therefore, if in your deliberations you adopt the recommendation made regarding the Council on Health and Public Instruction and provide for greater activities on its part, I would then further recommend that this duty of representation in behalf of the doctor individually and the profession collectively be delegated to that Council and that it be charged to call to its support the Association's resources to present our interests and maintain our rights to their furthest ability in all such legislative proposals. A legislative bureau, national in scope and activity, should be established at our headquarters.

OFFICERS OF OUR ASSOCIATION

I cannot refrain (I would be remiss if I did) from expressing appreciation and tribute to the executive officers and Trustees of our Association. For some ten years I have been in more or less personal contact with them and each succeeding year the impression becomes firmer that they are laboring in our behalf to the fullest capacity that we permit them.

Particularly do I wish to pay respects to Dr. George H. Simmons, our General Manager and Editor. That which we are, the position that this Association holds in the world today, The Journal that we own and which is the peer in the entire world of all medical journals, our Chicago Headquarters, our financial stability and our organizational prestige, are due in large measure to the executive, perceptive and diplomatic ability that he possesses. I am sure that you join me in tendering to him our expression of appreciation and continued confidence. Combined with our gratitude we are fervent in the wish and hope that his years may be peaceful and long and kind ere he enter into the shadows of the foothills to rest in the eventide of life to await the final summons of that other world. As he carries on in our behalf until that time comes I want to assure him that we are indeed grateful for that which he has accomplished for our good.

CONCLUSION

This House is the open forum of the Association and its component organizations, which you as delegates represent. The floor of this House is open to every delegate for the discussion of the problems, the interests, the welfare and the future of your constituents and associates, as long as you conform to the provisions of our Constitution and By-Laws. It is not the place for the furtherance of selfish, clique or selected group interests. Mindful of all of which, I bespeak your cordial and frank co-operation in my endeavor to acquit myself of the duties that fall upon me as your

Speaker during your deliberations in this, our Seventy-Fifth Annual Session.

COMMITTEE APPOINTMENTS

President Dodge has appointed the following committees to carry on our organizational activities during the coming year:

Public Health:

C. C. Slemons, Chairman, Grand Rapids.
J. H. Kellogg, Battle Creek.
E. C. Taylor, Jackson.

Legislation and Public Policy:

Arthur M. Hume, Chairman, Owosso.
Hugh Stewart, Flint.
F. B. Tibbals, Detroit.
A. W. Hornbogen, Marquette.
J. D. Brook, Grandville.

Venereal Prophylaxis:

Udo J. Wile, Chairman, Ann Arbor.
A. H. Rockwell, Kalamazoo.
J. L. Burkart, Big Rapids.

Tuberculosis:

J. S. Pritchard, Chairman, Battle Creek.
Wm. DeKliene, Saginaw.
Harlan McMullen, Manistee.
A. L. Ricker, Cadillac.
E. B. Pierce, Howell.
H. J. Hartz, Detroit.
B. A. Shepherd, Kalamazoo.

Civic and Industrial Relations:

G. E. Frothingham, Chairman, Detroit.
C. D. Munroe, Jackson.
R. H. Nichols, Holland.
W. H. Sawyer, Hillsdale.
C. D. Brooks, Detroit.
Isaac Polozker, Detroit.
Guy Johnson, Traverse City.
R. C. Stone, Battle Creek.
W. H. Marshall, Flint.

Medical Education:

Hugh Cabot, Chairman, Ann Arbor.
W. H. McCracken, Detroit.
Richard R. Smith, Grand Rapids.

On Roosevelt Hospital, Camp Custer:

Wm. S. Shipp, Chairman, Battle Creek.
H. A. Haynes, Lapeer.
Geo. H. Lynch, Big Rapids.
J. D. McCoy, Cass City.
E. S. Nesbit, Grand Rapids.

COUNCIL COMMITTEES

Chairman Seeley, of the Council, announces the appointment of the following Council Committees:

Committee on Finance:

C. T. Southworth, Monroe.
H. E. Randall, Flint.
C. C. Clancy, Port Huron.
W. H. Parks, East Jordan.

Committee on Publication:

J. B. Jackson, Kalamazoo.
R. C. Stone, Battle Creek.
J. McLurg, Bay City.
R. S. Buckland, Baraga.

Committee on Society:

F. B. Walker, Detroit.
L. W. Toles, Lansing.
W. J. DuBois, Grand Rapids.
Frank Holdsworth, Traverse City.

MINUTES OF THE COUNCIL

FIRST SESSION

The Council of the Michigan State Medical Society held its meeting in the Durant Hotel in Flint on June 7th at 5:00 P. M. The following Councillors were present: Chairman W. J. DuBois, Drs. C. C. Clancy, W. T. Dodge, A. L. Seeley, J. B. Jackson, R. C. Stone, F. B. Walker, H. E. Randall and C. T. Southworth. In addition to the members of the Council there were present: President W. J. DuBois, Dr. A. P. Biddle, Dr. J. B. Kennedy, Field Secretary of the American Medical Association, Dr. Olin West and the Secretary-Editor.

The Chairman of the Council presented his annual address, which was discussed paragraph by paragraph. Amendments were made and added throughout and the final report adopted on motion of Dr. Dodge, supported by Dr. Seeley. (See minutes of the House of Delegates for Annual Report.)

Dr. Olin West, Field Secretary of the A. M. A., addressed the Council on the activities of the American Medical Association and particularly that of his office as Field Secretary.

The Council upon adjournment was entertained at dinner by Councillor Randall of Flint.

ANNUAL MEETING OF THE COUNCIL

The Annual Meeting of the Council was held in the Durant Hotel in Flint at noon, June 9, 1922. There were present the following Councillors: Chairman W. J. DuBois, Drs. C. T. Southworth, R. C. Stone, L. W. Toles, C. C. Clancy, H. E. Randall, A. L. Seeley, F. B. Walker and J. B. Jackson. In addition there were present President W. J. Kay and President-elect W. T. Dodge.

A number of County Secretaries were present at luncheon as the guests of the Council.

Mr. C. H. Holler, Executive Manager of the Flint Chamber of Commerce, addressed the Council and secretaries on organizational activity. This was followed by an informal discussion by the Council with the secretaries. The secretaries then adjourned and the Council went into executive session.

On motion of Councillor Seeley, supported by Councillor Toles, the Secretary was instructed to purchase lanterns for the use of the sections.

On motion of Councillor Southworth, supported by Councillor Jackson, the Secretary was instructed to pay only the hotel expenses of guests invited to read papers before the several sections of the State Society.

On motion of Councillor Southworth, supported by Councillor Walker, the Secretary was instructed to pay sixty per cent of the railroad and hotel expenses of our delegates to the San Francisco meeting of the American Medical Association.

On motion of Councillor Southworth, supported by Councillor Toles, the Secretary was instructed to forward a check for \$855.00 to the Chairman of the Legislative Committee.

On motion of Councillor Walker, supported by Councillor Randall, the Secretary was authorized to pay fifty per cent of the railroad and hotel expenses of the members of the State Society who delivered lectures under the Joint Committee on Medical Education.

On motion of Councillor Clancy, supported by Councillor Walker, the action of the Council, held in special session February, 1922, regarding collection of a special fund be rescinded.

On motion of Councillor Seeley, supported by

Councillor Randall, the secretary's office expense was increased \$75.00 per month.

The Council then proceeded with the election of officers and Dr. Seeley was nominated as Chairman by Councillor Randall, supported by Councillor Walker. There being no other nominations, Dr. Seeley was elected Chairman of the Council for the ensuing year.

On motion of Councillor Stone, supported by Councillor Clancy, Dr. H. E. Randall was elected as Vice-Chairman of the Council.

On motion of Councillor Randall, supported by Councillor Southworth, it was resolved to hold the mid-winter meeting of the Council in Ann Arbor, Michigan, at such time and date as might be determined by the Chairman of the Council.

The Council then adjourned.

CONGRESSIONAL MEDICAL LEGISLATION

A. 1. Hospitals for Veterans. H. R. 11547. Passed House May 5, 1922; passed Senate May 6, 1922.

This bill appropriates \$12,000,000 for additional hospital facilities for the United States Veterans' Bureau. It also authorizes the director of the United States Veterans' Bureau, with the approval of the President, to incur additional obligations not to exceed \$5,000,000, for hospital purposes. This bill is supplemental to H. R. 10864, which became a law on April 20, 1922, and which authorized an appropriation of \$17,000,000 for additional hospital facilities. (See Statement No. 24, page 1.)

In the report of the Committee on Appropriations the following outline of the hospital facilities to be acquired is given:

DISTRICT No. 1

New England area; neuropsychiatric cases, 500 beds, \$1,500,000.

DISTRICT No. 2

New York, New Jersey and Connecticut; tuberculosis cases, 550 beds; general cases, 150 beds; total beds, 700; \$2,100,000.

DISTRICT No. 4

West Virginia, Virginia, Maryland and District of Columbia; general cases, 250 beds, \$750,000.

DISTRICT No. 5

North Carolina, South Carolina, Georgia, Florida and Tennessee; general cases, 200 beds, \$600,000.

DISTRICT No. 6

Louisiana, Alabama and Mississippi; neuropsychiatric cases, 350 beds, \$1,050,000.

DISTRICT No. 7

Ohio, Indiana and Kentucky; neuropsychiatric cases, 500 beds, \$1,500,000.

DISTRICT No. 8

Illinois, Michigan and Wisconsin; neuropsychiatric cases, 1,000 beds, \$3,000,000.

DISTRICT No. 9

Missouri, Kansas, Iowa and Nebraska; neuropsychiatric cases, 500 beds, \$1,500,000.

DISTRICT No. 10

Minnesota, North Dakota, South Dakota and Montana, neuropsychiatric cases, 500 beds, \$1,500,000.

DISTRICT No. 12

California, Arizona and Nevada; tuberculosis cases, 500 beds, \$1,500,000.

DISTRICT No. 13

Washington, Idaho and Oregon; neuropsychiatric cases, 250 beds, \$750,000.

DISTRICT No. 14

Oklahoma, Texas and Arkansas; neuropsychiatric cases, 200 beds, \$600,000.

TOTAL BEDS PROPOSED BY ACT

Tuberculosis, 1,050 beds	\$ 3,150,000
Neuropsychiatric, 3,800 beds	11,400,000
General Cases, 600 beds	1,800,000

Total (5,450 beds)\$16,350,000

A. 2. Habit-Forming Drugs. H. R. 2193. Passed House May 4, 1922. Referred to Senate Committee on Finance, May 5, 1922.

This bill amends the Opium Acts of February 9, 1909, and January 17, 1914. The bill would create a Federal Narcotic Control Board to consist of the Secretaries of State, Treasury, and Commerce, but the administration of the bill would be entrusted to the Treasury Department. Importation of narcotic drugs into this country or its territories would be unlawful except in the case of crude opium and coca leaves for medicinal use as permitted by the Board. Suitable regulations controlling such importation would be prescribed and duties provided. Drugs seized under provision of the Act, due to illegal entry, would be turned over to the Board for medicinal purposes. Exportation of narcotic drugs other than smoking opium, which is absolutely prohibited, would be permitted only to countries having ratified the International Opium Convention of 1912. Penalties are provided for infractions of the law.

A. 4. Pay of Army, Navy, and Public Health Service. H. R. 10972. Passed the House May 12, 1922.

This bill was brought up for consideration under a special rule in the House May 8, 1922, and after being debated, was passed on the 12th. An amendment proposed by Miss Robertson, which increased subsistence rates for nurses from 60 cents to \$1.20 a day was adopted. Rent money for nurses was raised from \$40 to \$60 a month. It is estimated that the total ultimate savings by the regulation of pay included in the provisions of the bill will reach \$27,500,000. A complete summary of this measure will be found in Statement No. 21, page 1.

B. 3. Construction Rest Camps for Disabled Soldiers. H. R. 11592. Introduced by Representative Gallivan May 9, 1922. Referred to the Committee on Buildings and Grounds.

Five million dollars is appropriated by this measure for the acquiring of sites and the construction of rest camps in the various districts of the United States Veterans Bureau in order to benefit disabled ex-service men.

B. 4. Acquiring of Sites for Hospitals and Sanatoriums. S. 3576. Introduced by Senator Stanley of Kentucky, May 9, 1922. Referred to Committee on Public Buildings and Grounds. H. R. 11588. Introduced by Representative Kincheloe of Kentucky, May 9, 1922. Referred to Committee on Public Buildings and Grounds.

These two bills introduced simultaneously in the Senate and the House are identical in language and provide for the protection of the United States government in the acquisition of sites for federal hospitals and sanatoriums by condemnation.

B. 5. Establishment of Physical Training Department at West Point. H. R. 11550. Introduced by Representative Morin May 4, 1922. Referred to the Committee on Military Affairs.

This measure provides for the establishment of a separate department of physical training at the United States Military Academy at West Point with an instructor whose exclusive duties shall be to teach physical training to the cadets at the institution.

C. STATE HEALTH LEGISLATION

C. 1. Summary of 1922 Legislation.

The legislatures of nine states convened in Jan-

uary, 1922, and, except for that of Massachusetts, adjourned about the first of April. The Massachusetts legislature continues in session until the middle of the summer and the Louisiana and Georgia legislatures meet in May and June, respectively. During the legislative sessions between January and April of this year, the United States Public Health Service issued six bi-weekly bulletins on state health legislation, with the co-operation of the National Health Council. In these six bulletins about 350 bills concerning some phase of public health were abstracted. Approximately 100 of them were passed by the nine legislatures. It is estimated that not less than 10,000 bills on all subjects were introduced in these legislatures, though only a small per cent became laws. It is obviously too great a task to attempt to give here a complete summary of the 1922 state health legislation, but a brief review is presented. This resume is taken from such information as we have been able to gather and is probably not entirely complete or comprehensive.

CHILD WELFARE

A number of states accepted the Federal Maternity and Infancy Act (see C. 2 below). Massachusetts rejected a bill for this purpose, as did also New York. In the latter state, however, a bill was passed providing \$130,000 for the protection of the health of mothers and infants and placing the administration of this work in a new Division of Maternity, Infancy and Child Hygiene of the State Department of Health. In Virginia, a group of bills dealing with various aspects of child welfare proposed by the Children's Code Commission were passed. A bureau of child hygiene was created in the Maryland State Health Department. In New York a midwife licensing law was passed and several bills concerning maintenance and commitment of children became laws.

FOOD AND DRUGS

Many bills concerning these subjects were introduced. Mississippi turned down a bill requiring physical examination of food handlers. Virginia transferred sanitary inspection of hotels from the State Health Department to the State Dairy and Food Commissioner. Bills prohibiting blending of milk with fats other than milk fats were introduced in most of the states. New York passed such a law. New Jersey passed a similar law with reference to condensed milk and also set standards for ice cream. Massachusetts passed a bill relative to fish but turned down a number of other food control bills. Maryland licensed bottlers of soft drinks and passed a poultry control bill. New York amended its Farms and Markets law re adulterated food; and also passed milk, butter and other food laws.

HOSPITALS

Several bills relating to hospitals were passed. New Jersey authorized county contagious disease hospitals. Sites for Federal hospitals were authorized in Kentucky and New York. The latter state provided for public general hospitals (Chap. 265). (See also under Tuberculosis below.)

MENTAL HYGIENE

Bills relating to care of the feeble minded were introduced in a number of states and several are now pending in Massachusetts. Mississippi appropriated money for Hospitals for the Insane.

NURSES

Several bills relating to nursing are now pending in Massachusetts. Maryland required licensing for practical nurses and gave credit to nurses

for training in schools of public health. New York passed a law to waive examination of nurses having certain qualifications.

PRACTICE OF MEDICINE AND OTHER HEALING PROFESSIONS

Quite a number of medical practice acts were introduced, but few passed. The chiropractors were active and bills to license members of this cult were introduced in practically all the states, but without success. Several bills concerning osteopathy were not passed. Pharmacist bills passed in Kentucky and Maryland. An amendment to the optometry law was adopted in Maryland, and regulations for optometrists were passed in New York. A chiropody law was also passed in this state, as were midwife, veterinary, and dentistry laws. New Jersey provided for an Inspector of the State Board of Medical Examiners.

TUBERCULOSIS

New Jersey passed two important laws on this subject, allowing county freeholders to establish tuberculosis hospitals (Chap. 269) and stating requirements of the superintendent (Chap. 278). New York provided for tuberculosis hospitals in its general hospital law (Chap. 265), already mentioned above, and also established departments of occupational therapy in tuberculosis and general hospitals. Maryland passed a bill regarding reporting and control of this disease. Virginia appropriated \$15,000 for a clinic of doctors and nurses in a bureau of tuberculosis education of the State Board of Health.

VENEREAL DISEASES AND SOCIAL HYGIENE

Bills requiring physical examination before marriage, which were introduced in a number of states, were not generally successful. A number of bills prohibiting druggists from selling venereal disease remedies except on physicians' prescription, were also introduced. Mississippi appropriated \$16,000 to fight these diseases.

MISCELLANEOUS

Anti-vivisection and anti-vaccination bills in several states were, as usual, killed. Water supply bills were passed in New York and other states. State Health appropriation bills were generally passed. New Jersey passed a law concerning membership on its State Board of Health. Vital statistics measures passed in Kentucky and Virginia. Acts relating to municipal health were passed in several instances.

C. 2. The States and the Federal Maternity and Infancy Act.

According to the United States Children's Bureau forty-one states have now accepted the provisions of the Act for the Promotion of the Welfare and Hygiene of Maternity and Infancy, which became a law on November 23, 1921. Ten of these states (Delaware, Kentucky, Maryland, Minnesota, Mississippi, New Hampshire, New Jersey, New Mexico, Oregon and Virginia) accepted the act by legislative enactment, while the remaining thirty-one adopted it by proclamation of the governor in the absence of a legislative session. The states which have not accepted the act are: Louisiana, Maine, Massachusetts, Nevada, New York, Rhode Island and Washington. On April 18, 1922, the Federal Maternity and Infancy Board approved the plans of twenty-three states for the administration of the act. (See Statement No. 25, page 2.) The Attorney General of Massachusetts has recently declared his opinion that the Federal Maternity Act is unconstitutional. A copy of this opinion is

reproduced in the United States Congressional Record of May 11, 1922 (pages 7371-7374).

A. 5. The Federal Maternity and Infancy Act. Opinion of the Attorney General of Massachusetts.

Forty-two states have now accepted the terms of the Act for the promotion of the welfare and hygiene of maternity and infancy. (See Statement No. 26, page 12.)

Since the recent opinion of Attorney General J. Weston Allen of Massachusetts, declaring this act to be unconstitutional is of interest to sanitarians, we are including an abstract of it. This opinion, of course, has no effect at law. If Massachusetts should bring a suit in equity against those Federal officials charged with the administration of the act, the United States Supreme Court, having original jurisdiction, would try the case and decide the constitutionality of the act.

The attorney general, in presenting his opinion to the Massachusetts legislature, argues that:

- (a) The Constitution does not give the Federal Government power to regulate the internal affairs of any state such as would occur in the enforcement of the Maternity and Infancy act, whereby the U. S. Children's Bureau would actually have control of internal affairs of the states.
- (b) The act vests in the Federal government certain powers relating to maternity and infancy that manifestly fall within the scope of the police power reserved specifically to the states in the Constitution by the Tenth Amendment.
- (c) It is illegal for the state government to yield powers granted to them by the Constitution and such powers can only be granted to the Federal government through an amendment to the Constitution.
- (d) The act cannot be legalized upon the ground that it comes within scope of the "general welfare clause" of the Constitution, as this clause conferred no power on Congress to enact legislation for general welfare, but was placed there to limit the taxing power of the Federal government.
- (e) The Maternity and Infancy statute is not an appropriation measure, but an attempted exercise of power over maternity and infancy, and is not even for the general welfare of the United States, but only for certain states.

Many cases and court decisions are cited in support of this reasoning. A complete copy of the opinion appears in the Congressional Record for May 11, 1922, beginning on page 7371.

Editorial Comments

Though the summer months are at hand and many of our societies have adjourned their meetings until fall, we urge that organizational associations be not permitted to lie dormant until fall. Why not a county picnic, or better, a picnic with your neighboring county? Besides a pleasant outing and relaxation, valuable friendships may be cemented. In place of talking pills, splints, tumors and bacteria, talk about your relationship to the public and lay your fences to obtain the support of your representatives in the legislature. We hope to hear of many such outing days arranged for by the suitable committee from each society.

Emanating from the success of the Woman's Auxiliary of the State Medical Association of Texas, there was organized in St. Louis during the A. M. A. meeting a Woman's Auxiliary to the A. M. A. The object of this auxiliary is: To extend the aims of the medical profession through the wives of doctors to the various women's organizations which look to the advancement in health and education. To assist in entertainment at all medical conventions, to promote acquaintanceship among doctors' families, so that closer fellowship may exist. Officers were elected

and an active campaign of nation wide organization of these auxiliaries is being undertaken.

We believe the plan a splendid one and trust that our county societies will further the movement. Tell your wife about it and get her to get the wives of the other doctors in your county interested. Details and information may be secured from Mrs. H. L. D. Kirkham, Corresponding Secretary, 3711 Mount Vernon, Houston, Texas.

The Red Cross has still millions of dollars of war funds on hand. The war is over and the demands for Red Cross relief is rapidly disappearing. The Red Cross officials have been receiving lucrative salaries and of course are loath to relinquish their positions, as they must do if there is nothing to occupy their time. Hence they are casting about for avenues of activity and seemingly have concluded to establish free clinics for the treatment of the people. Extended plans for the conduct of such clinics and the scope of their activities have been formulated. The House of Delegates of the American Medical Association has gone on record that such activity on the part of the Red Cross is unwarranted and is without the scope of that organization's object and purpose. We add our protest to that of our national association and urge our members to record with the Red Cross our emphatic disapproval of their proposed plan.

An Act to Provide for the Dissemination of Legal Information and to Prevent Litigation in the State of Michigan.

Provides for a central state bureau at Lansing.

For a legal information center in every county seat.

For officials, traveling lecturers and office help.

Making it possible for any citizen to secure the very best legal advice from state paid officials in his own county seat free of all charges and expense.

Shake something like this over a few heads.

It would take like a prairie fire.

People would vote for it.

Politicians would fight for it.

It would turn the public eye from three dollar imaginary "mysticism" to the mysterious extortions of another profession.

Say, it is a mighty good thing. If we get state medicine we will have free law advice.

It would give the honest physician more time to look after his patients, for he would not have to worry so much about the fences at Lansing.

And, by Gee-ee-ee, I could start it by just writing ten letters.

Had a lot of stuff partly ready, but have been ill with the real Flu and could not get my manuscript in even decent green ink form. I had some horrible rides to make, and it is getting me. Summer resort doctors here now when the roads are good and I get plenty of rest.

Doctors, for heaven's sake, quit pleading guilty. You have saved many lives, and now they are trying to make you apologize for it. It is quite likely some should have been allowed to go, but leave that to God, He will get them in time, and if He don't they may call you again.

Cut out that mysticism stuff. What physician should be accused of that? If we do not tell every

dead beat, grafter or would-be healer what we use and the doses, they holler that we ought to educate the public. Well, who paid for the little we know? They did not, and they do not intend to pay for it if they can get some way provided to get your best services for nothing.

The average physician is an honest man. The best way to stop this clamor is for him to look the judge squarely in the face and say: "Not guilty."

Then the costs will be assessed to the people as usual, and the doctor can go back to his collections.

Our duty is to our patients. Good practice will hold our patients.

But—you can't watch the politicians too closely. It may be necessary for some of you to sleep with them, but have something in your vest.

"JACK PINES."

Deaths

Doctor Frances A. Rutherford was born in 1839 and died in Grand Rapids May 24, 1922, from cerebral hemorrhage. She was graduated from the Woman's Medical College of Pennsylvania in 1868 and was in practice in Grand Rapids for more than a half century. The doctor was formerly obstetrician and gynecologist to the Blodgett Memorial Hospital. She was a member of the Kent County Medical Society, the Michigan State Medical Society, and the American Medical Association.

Doctor Arthur M. Gerow was born in 1845 and died in Cheboygan May 21, 1922. He graduated from the Medical Department of the University of Buffalo in 1868.

Doctor Charles Douglas was born in Streetsville, Ontario, in 1843 and died in Detroit May 26, 1922. He graduated in medicine from the University of Toronto in 1864. The doctor came to Detroit in 1876. He was a pioneer in the specialty of children's diseases. He belonged to the Wayne County Medical Society, Michigan State Medical Society and American Medical Association. He is survived by four daughters, Mrs. Donald (wife of Dr. W. M. Donald of Detroit), Mrs. Campbell (wife of Dr. Don M. Campbell of Detroit), Miss Kathleen Douglas of Detroit, and Mrs. J. T. Lee of Chicago.

Doctor R. E. Finch was born in 1849 and died in Gladwin April 28, 1922. He licensed in Michigan in 1900.

Doctor William J. Duff, Health Officer of Port Huron for the past eight years, died suddenly of angina pectoris on May 26th.

He was born in Pittsburgh, Pa., in 1856, and came to Port Huron in 1868. He was a graduate of the Michigan University Medical School in 1885, and was a member of the Michigan State Medical Society.

As a physician he was kindly, painstaking and able; as a health officer, very efficient; as an American, he was unusual in his devotion to and his love for his country. His patriotism never for an instant fell below one hundred per cent.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer,** 309 Post Building, Battle Creek, Michigan. **Reference any Bank in Battle Creek.**

Position wanted—Harper Hospital Graduate, 1921, now taking P. G. work in office management and surgical technic, is open for position. Address 3380 Hudson Ave., Detroit, Mich.

Old established practice for price of real estate. Terms. Address G. H. S., 4602 Mt. Elliott Ave., Detroit, Mich.

Wanted—A few Book Agents to sell the new "Crowning Edition" of the celebrated "Book on the Physician Himself." Rare chance. Address the author, D. W. Cathell, M. D., Emerson Hotel, Baltimore, Maryland.

Dr. C. W. Walker has located in Iron Mountain.

Dr. L. W. Haynes was recently elected a member of the Detroit Athletic Club.

Dr. A. N. Collins of Detroit sailed, June 10, 1922, for a several months' trip abroad.

Dr. Crane of Kalamazoo has returned from a three months' visit to European clinics.

Dr. and Mrs. W. J. Mullenhagen of Detroit, announce the birth of a son, Walter Jr., on May 26, 1922.

Miss Margaret Walker, daughter of Dr. and Mrs. Frank B. Walker of Detroit, was married June 26, 1922, to Mr. G. M. Hawthorne.

Mr. Ralf P. Emerson, son of Dr. and Mrs. Justin E. Emerson of Detroit, was married, June 17, 1922, to Miss Sarah W. Davis of Lapeer.

Dr. Max Ballin read a paper on "Goitre from an Etiological Point of View," before the Detroit East Side Physicians' Association, April 20.

Ernest E. Welch was convicted of practicing medicine without a license May 19, in the Records Court, Detroit.

Dr. T. A. McGraw read a paper illustrated with lantern slides on "Endocrinology," before the Highland Park Physicians' Club, May 4.

Dr. P. L. Marsh of Ann Arbor read a paper on "The High-Fat Diet Treatment of Diabetes," before the Wayne County Medical Society, May 29.

Dr. Henry Carstens was elected Chairman and Dr. Douglas Donald Secretary at the May 29th meeting of the Medical Section of the Wayne County Medical Society.

One hundred and fifty-one students took the primary and 79 the final examinations given by the

Michigan State Board of Registration in Medicine at Ann Arbor, June 13, 14, 15, 1922.

Mrs. Steinbrecker has recently donated to the Library of the Wayne County Medical Society, some 300 volumes from the library of her husband, the late Dr. A. H. Steinbrecker.

Dr. Robert B. Harkness of Houghton was recently appointed a member of the Michigan Advisory Council of Health by Gov. Groesbeck. He succeeds the late Dr. J. G. Turner.

Books have recently been presented to the Library of the Wayne County Medical Society by Doctors Belle Warner, H. M. Rich and H. E. Saford.

Dr. H. Lee Simpson read a paper on "Anatomy and Surgical Pathology of Nose and Accessory Sinuses in Relation to Medicine," before the Detroit Academy of Medicine, May 9.

Dr. Joseph C. Bloodgood of Baltimore is one of 10 men selected from 20,000 alumni of the University of Wisconsin for a place in the Wisconsin Hall of Fame.

Dr. Udo J. Wile of Ann Arbor was elected Secretary-Treasurer of the American Dermatological Association at its annual meeting, held in Washington, D. C., May 2, 3, 4.

At the annual election of the Wayne County Medical Society, held May 15, Dr. W. M. Donald was elected President; Dr. W. J. Stapleton, Vice President, and Dr. B. C. Lockwood, Secretary.

The wedding of Dr. Rowland F. Webb and Miss Lois Mary Lillie is announced. The Doctor and his bride are spending their honeymoon in Europe and will return to Grand Rapids about September 1.

An obstetrical department has been opened recently at the Henry Ford Hospital, Detroit, under the direction of Dr. Everett D. Plass, formerly Associate Professor of Obstetrics at Johns Hopkins Medical School.

The Board of Regents of the University of Michigan appointed, May 26, Professor Howard L. Lewis, (Instructor in Physiological Chemistry in University of Illinois) to the Chair of Physiological Chemistry in the University of Michigan.

The Pennsylvania Bureau of Medical Education and Licensure voted, May 4, not to accept by reciprocity any physicians licensed in Illinois during 1921, because of the irregularities reported in granting licenses during that year.

The following officers were elected May 11, by the Detroit West Side Physicians' Association: Dr. H. P. Doub, President; Dr. G. A. Wilson, Vice President; Dr. Frank Weiser, Secretary, and Dr. H. D. Harm, Treasurer.

Dr. Don M. Campbell read a paper on "Diseases of the Eye in Relation to Systemic Disease," and

Dr. Emil Amberg on "Preventive Measures in Deafness in Children," before the Detroit West Side Physicians' Association, May 11.

At the Annual Meeting of the Detroit East Side Physicians' Association Dr. A. G. Huegli was elected President; Dr. R. Bolazny, Vice President; Dr. H. L. Clark, Secretary Dr. L. O. Geib, Treasurer and Dr. William Hipp, Member of the Board of Control.

The Detroit Diagnostic Hospital, Jefferson Ave. East, is expected to open its new building early this fall. The following physicians are connected with it: Drs. C. G. Jennings, J. W. Vaughan, T. B. Cooley, P. F. Morse, E. R. Witwer, A. F. Jennings, C. F. Thomas and W. C. Cole.

Four chiropractors (C. L. Tennant, Z. B. Mead, H. F. McKnight and Florian Palmer) who were recently convicted in the Detroit Municipal Court of practicing medicine without a license, were each fined \$200 or four months in the Detroit House of Correction by Judge Keidan, June 15.

Dr. C. L. Stevens of Athens, Pa., recently presented the Library of the Wayne County Medical Society with a number of issues of the Pennsylvania Medical Journal, practically completing the files of that Journal. Doctors Bell and Ray Connor also have made donations recently to the library.

The Michigan State Homeopathic Medical Society held its Annual Meeting May 11, in Ann Arbor. The following officers were elected: Dr. T. G. Yoemans of St. Joseph, President; Drs. Guy Alway of Ann Arbor and H. S. Carr of Niles, Vice Presidents, and Dr. M. Al A. Darling of Detroit, Secretary-Treasurer.

Dr. L. J. Hirschman read a paper on "The Surgical Treatment of Constipation," and Dr. W. D. Ford, on "The Medical Treatment of Constipation," before the Detroit Medical Club, May 18. Dr. F. T. F. Stephenson was elected President; Dr. C. E. Simpson, Vice President, and Dr. Stuart Wilson, Secretary-Treasurer, May 18.

The Michigan Association of Industrial Physicians and Surgeons, at its Annual Meeting held in Flint, June 7, 1922, elected Dr. Guy L. Kiefer of Detroit, President; Dr. C. S. Gorsline of Battle Creek, Vice President; Dr. G. C. Pemberthy of Detroit, Secretary-Treasurer and Dr. T. F. Heavenrich of Port Huron, Director.

The Michigan Health Officers Association held its Annual Meeting in Flint, June 8, 1922, and elected the following officers: Dr. Guy L. Kiefer, Detroit, President; Dr. David Littlejohn of Ishpeming, Vice President; Dr. W. J. V. Deacon of Lansing, Secretary-Treasurer, and Dr. R. M. Olin of Lansing, Delegate to the American Public Health Association.

The Annual Meeting of the Academy of Surgery of Detroit was held, May 14. The following officers were elected: Dr. Max Ballin, President; Dr. A. W. Blain, First Vice President; Dr. Charles Kennedy, Second Vice President, and Dr. W. W. Barrett,

Secretary-Treasurer. Dr. C. G. Darling of Ann Arbor read a paper on "The Importance of Early Operations."

Flint board of education has voted to install complete dental and health clinics, and to maintain a staff of nurses under the direction of a school physician, and two dentists, for the care of Flint school children. Medical and dental examinations of school children have been carried on here previously by the city health department. Clinic equipment is to cost \$25,000, it is said.

On June 9, Dr. L. J. Hirschman of Detroit gave a clinic at the University of Buffalo, illustrating Local Anesthesia in Ano-Rectal Diseases. On July 6, 7 and 8, Dr. Hirschman will hold a clinic in Spokane, Wash., before the Pacific Northwest Medical Association. On July 11, he has been invited to address the Portland, Oregon Medical Association, and will speak on "The Present Status of Local Anesthesia in Ano-Rectal Disease."

The 35th Annual Report of the Children's Free Hospital, Detroit, recently published, shows the attending medical staff as follows: Dr. E. R. Hoobler, Director of Medical Department; Dr. T. B. Cooley, Associate Director of Medical Department; Dr. G. C. Pemberthy, Director of Surgical Department; Dr. F. C. Kidner, Director of Department of Orthopedic Surgery; Dr. H. L. Begle, Director of the Department of Ophthalmology; Dr. J. S. Wendell, Director of the Department of Otolaryngology; Dr. H. A. Reye, Director Neurological Department; Dr. H. L. Simpson, Bronchoscopist and Oesophagoscopist; Dr. E. R. Witwer, Director of Laboratory.

In the Annual Report of Providence Hospital, Detroit, recently published, the Attending Staff is as follows: Drs. D. O'Donnell, A. S. DeWitt, H. S. Schmidt, (Medicine); Drs. F. B. Walker, A. McDonald, W. J. Seymour, Geo. Potter, E. J. Panzner, (Surgery); Drs. W. Welz, F. J. MacDonald, J. N. Bell, (Obstetrics); Drs. H. W. Yates, G. V. Brown, W. A. Harper, E. A. Pillon (Gynecology); Drs. R. E. Mercer, Wadsworth Warren, (Laryngology); Drs. Robert Beattie, Ray Connor (Ophthalmology); Drs. A. W. Ives, D. R. Clark (Neurology); Drs. W. E. Keane, C. P. Sibley (Genito Urinary); Dr. R. A. Wollenberg (Dermatology); Dr. Daniel La Ferte (Orthopedics); Dr. I. L. Polozker (Pediatrics); Dr. J. A. MacMillan (Proctology); Dr. D. M. Graham, (Oral Surgery); Dr. J. E. Davis, (Pathology), and Dr. George Chene (Roentgenology).

County Society News

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, May 24, 1922, President Miner in the chair. Dr. A. D. Wickett, Assistant Professor of Medicine, University of Michigan, gave a most timely address on "The Treatment of Hay Fever and Asthma." He discussed the modern theory of asthma being a protein sensitization. While perennial types are due to foods, animal emanations and infections, he considers the infective role the most important in therapy. In the sea-

sonal types, the early hay fevers are usually due to the pollen from trees and have such a brief course that treatment is seldom needed. In this region, summer types are best treated by ascending doses of the Timothy antigen, and the later autumn types, by that of Ragweed. When an attack is already begun, autogenous vaccines give most relief. In chronic asthma, he considers it imperative to clear up all foci of infection in the tonsils, teeth, sinuses, and to make autogenous vaccines from infective material, including the sputum. He makes the vaccine from all the organisms that grow in culture.

W. H. MARSHALL.

Secretary.

ACADEMY OF SURGERY OF DETROIT

The Academy of Surgery of Detroit held the last meeting for the summer at St. Mary's Hospital on Friday evening, May 12, 1922.

The paper of the evening was by Dr. Cyrus W. Darling of Ann Arbor on "Intestinal Obstruction."

The following officers were elected for the ensuing year:

President, Dr. Max Ballin; Vice President, Dr. Alexander W. Blain; Second Vice President, Dr. Chas. Kennedy; Secretary and Treasurer, Dr. W. D. Barrett.

IRA G. DOWNER,

Secretary.

Correspondence

The Editor of the Journal of the Michigan State Medical Society:

Having been informed that your association was in session at the present time, I took the liberty to write you about a matter which in my estimation should be given serious thought and prompt action taken by the medical profession of this state.

You medical men sometimes wonder why you are not getting results in prescribing for your patients, but if you will read Mr. H. H. Hoffman's recent report you will satisfy yourself that the State Board of Pharmacy are not doing their duty in protecting the public and physicians against drugs sold in the drug stores of our state, that are not up to standard.

Mr. H. H. Hoffman is the State Director of Drugs and Drug Stores, and in his recent investigation stated that he found that more, he didn't state how much more, may have been twice as large a per cent, but he did state that more than 20 per cent of all medicines analyzed in the state laboratories from samples obtained from drug stores throughout our state, are not up to standard strength. Does this mean anything to the medical profession of this state?

Do they get the desired results in prescribing for their patients? Mr. Hoffman reports that, but what action has he taken in the matter? Has he made any prosecutions as they do in other states, when he finds such a condition? Has he made any prosecutions of drug store proprietors who allow their prescriptions to be compounded by non-registered druggists and in most cases apprentices? Read his report regarding the number of drug stores which are running without competent registered

druggists to handle your prescriptions. Is it any wonder you may not be getting results, or at least better results in prescribing? The condition is without a parallel and I think requires the attention of your association.

Very truly,

RALPH STILLMAN.

The Editor of the Journal of the Michigan State Medical Society:

Your letter of June 12 has reached me today. I do not need to thank you with all my heart for the letter. You speak very generously of what I endeavored to do and if even in a slight degree wholesome and satisfactory results were secured, I am delighted beyond words. I am sure you know that I am sufficiently human to appreciate what you say.

When I receive the stenographer's notes I shall endeavor to go over them as promptly as possible and return them to you.

In the meantime, let me assure you that if this University or its Medical School can be of the slightest service to the State Medical Society or to the profession in general, we are only eager to be called upon.

Very sincerely yours,

M. L. BURTON.

MALNUTRITION AND THE SCALES

A wave of enthusiasm for the weighing and measuring of school children is at present sweeping over the country. This enthusiasm is a healthful and cheering sign and the custom is capable of great good, but it should be directed by cool common sense.

The chart by Dr. T. D. Wood and the chart by Boas and Burke, vary by at least 5 per cent, so that a child normal by the Wood chart, is abnormal or below normal by the other. So there is nothing inspired or sacred about the conclusions of either chart. Normal and average are not synonymous terms and the question, "Is this child undernourished?" can not be settled by the scales alone.

If we are not to rely on the scales alone, what other data have we on which to base a pronouncement of malnutrition? Dr. Rose has adopted the following method of assigning relative values for a 100 point diagnosis:

1—General appearance as to vigor and alertness (25 points). Bright eyes, animated movements and good posture are not the usual accompaniments of malnutrition no matter what the scales say.

2—Musculature (25 points). Good firm muscles, whether well padded with fat or not, do not go with malnutrition, no matter what the scales say.

3—Color or complexion (25 points). A clear ruddy complexion is not always present in a person of good health, but when present it counts strongly against malnutrition no matter what the scales say (except the flushed cheeks of excitement or of fever).

4—The scales (25 points). These are a very valuable aid in detecting malnutrition, not to be compared however, to the thermometer in detecting abnormalities of temperature, but perhaps to the

sphygmomanometer in determining abnormalities of heart or kidney.

The upshot of all this is that a boy or girl may be perfectly normal and well nourished even though considerably above or below the average weight for height attained. However racial, familial and even personal types do exist.

Instead of making average (represented by a line or a graphic chart) the normal, make a zone of say 7 or 10 per cent above and below that line to take its place. A child falling within those lines, unless presenting other evidences of malnutrition need not be worried ever either by the nurse or mother.

A great painter was once asked how he mixed his colors. "With brains," was his reply. Let us do the same with our scales and yardstick.—Public Health, May, 1922, Frank L. Rose.

Book Reviews

1921 COLLECTED PAPERS OF THE MAYO CLINIC, ROCHESTER, MINN. Octavo of 1,318 pages, 392 illustrations. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$12.00 net.

These collected papers require no introduction to the profession. The volume represents the scientific work of the clinic in the subjects discussed. As such then they become authoritative references of extended value to the students in the profession. The excellence of the previous twelve volumes is maintained if not exceeded. No one article merits special mention. They are all representative and cover important subjects upon which we welcome the findings and conclusions of this clinic.

Strongly do we commend and urge its study by our readers. It is an annual appearing classic that one cannot afford to be without.

THE PRACTICE OF MEDICINE. By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania; Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Octavo of 1,106 pages. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$7.50 net.

The author's preface well states the object and scope of this text.

The object I have endeavored to attain in the preparation of this work is to present descriptions of the various internal diseases which should accord with the present state of our knowledge, and, which, though concise, should give to the student and practicing physician the most necessary points in pathology, diagnosis and treatment. In order to keep the material within reasonable limits I have omitted clinical records of my own and of others which would have served as illustrations of the text, and for the same reason, I have disregarded, for the most part, all controversial questions and all theories still under discussion. Nevertheless I have tried to indicate what seem to be the important issues of the day and to point out that many conclusions which are generally accepted as final are in reality only provisional and with more accurate observation and more critical consideration of results may have to be greatly modified. I have not

the ability, nor have I attempted, to supply all the information that the internist needs, but I have consulted the writings of many authorities, both American and foreign, and have supplemented the information obtained from these sources by what I have learned myself in thirty years of practice in various hospitals and elsewhere, as well as of teaching, first in pathology and then in internal medicine, and I venture to hope that nothing of real importance has been omitted, and that the book will be found a trustworthy guide to the practice of medicine.

Certain references have been inserted in the book for the benefit of those who may wish to study more fully any particular subject. Those selected are to contributions which themselves present a more or less complete bibliography, which deal with comparatively recent investigations, which are of exceptional importance, or which are historically interesting.

Well written, comprehensive and modern, it bids well to find a high place in our texts on medicine.

THE WRITING OF MEDICAL PAPERS. By Maud H. Mellish, Editor of the Mayo Clinic Publications. 12mo of 157 pages. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$1.50 net.

Here's a manual we trust will find its way to every medical man who submits articles for publication. It is just the outline of advice as to style, copy and language that we have been longing for. It will elevate the literary style of every author who follows its rules. It will make our medical literature greater in its value. Get it, read it, study it, follow its rules.

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Original Articles

THE PROFESSION OF MICHIGAN AND THE UNIVERSITY OF MICHIGAN*

MARION L. BURTON
President, University of Michigan
ANN ARBOR, MICH.

Mr. President, Members of the State Medical Society and Fellow Citizens:

It is a genuine pleasure and satisfaction to me to stand before this organization. Not because I like to make speeches, but, if speeches have to be made, I am glad to have an opportunity to make one here.

First, I wish you to know that the University of Michigan is appreciative of the fine, splendid co-operation now existing between us. I think when your representatives approached me, as they did, and stated that they would like co-operation between the State Society and the University of Michigan in the education of the public on matters of health it was a very important moment for the institution which I have the honor to represent. Since then there have been gatherings of our joint committee, out of which have come plans which will be of real credit to the state, to the medical profession, and to the University of Michigan. I have not time to enter into those plans in detail. I know you are in thorough sympathy with them, because your president and secretary have told me that you have approved them. I think this means a forward move for the State Medical Society, the State Dental Society, for the Department of Health, for the University of Michigan and for the other organizations which will co-operate in the enterprise.

I am a layman, and I never expect to understand the mysteries of the medical mind. But I do know as I become acquainted with this organization that before you are doctors you are human beings; before you are representatives of your profession you are citizens of the great state of Michigan, and I wish to

express the great pleasure and satisfaction I am experiencing in associating with you.

May I say a few words about our plan? Some of you have heard all about it, but at times there is benefit in repetition.

I hope everyone of you who may be identified with that campaign will read very carefully the statement of purpose which is on every letter which is sent out with it. It must be clearly understood that the University of Michigan is a place devoted to the discovery of truth, that it has dedicated itself to truth, and that it has a reputation for the propagation of truth. Therefore, we are entirely within our field in joining you in this work. It is a part of the work of the institution, but it must be understood that we cannot be a party to any attack upon any cult or sect. It may be thought of in this way: We are sending out not advocates, but teachers. We are trying to get to the people some of the fundamental truths in regard to hygiene and public health. No one could criticize that kind of an undertaking, and we believe that with your co-operation and the work of the committee it will be possible to do much.

If I had time I would like to talk to you about the medical school of the university, but many of you are graduates of that institution and it is hardly necessary for me to inform you about your Alma Mater.

The past year has been remarkable in many ways. It has been the first year of Dean Cabot's administration. He has brought great vigor and understanding to the conduct of his office. The year has been interesting above all, I think, in strengthening our teaching force and bringing into the faculty for next year men who have been needed for some time. The university this year has appointed four professors upon the full-time basis. First, Dr. John Sundwall, professor of hygiene. Then, Professor P. M. Hickey, who will take charge of roentgenology, succeeding our lamented Professor Van Zwaluwenburg. Dr. L. M. Warfield of Milwaukee, a graduate of Johns Hopkins, who has been connected with the medical school at St. Louis, will be with us next year as professor of internal medicine and

*Delivered at General Session, M. S. M. S., 57th Annual Meeting, Flint, June 7-9, 1922.

head of the department. You are also aware that when Dean Vaughan resigned he not only gave up the department of hygiene but that of physiological chemistry, and I do not need to tell you the importance of the department of physiological chemistry. At their last meeting the board of regents provided that department with sufficient funds to secure a first-class head and I am very happy to name as that head Professor H. B. Lewis, professor of physiological chemistry at the University of Illinois.

I tell you these things to show you that our minds have been working on material things in the effort to organize the sort of staff that is required in a first-class school.

But I cannot confine myself entirely to medicine. You would not expect me to say nothing about the University of Michigan as a whole. Just now I want you to understand that we are seeking in every possible way to serve the state of Michigan and to develop her institutions. You hear many things about the university. Many things are said that would be so if they were true! Many things have happened—just recently, this morning, in fact. I had just gone to bed—it was between one and half past, and I heard a curious noise and jumped out of my little bed on the sleeping porch and saw six or eight splendid young men, who, as an expression of their physical vigor, thought it necessary to bring over one of those large French guns that we are using in our military training and station it at our front door. (Laughter.) I watched them do it, and they did it very quickly and quietly, too, and I was just about to say, "What's your hurry, boys?" when I thought it would not do for them to know that I suspected anything—I knew it would be gone by the time I got up anyway. I tell you this just to show you that when you get together eleven thousand splendid young barbarians a display of clean humor is sometimes to be expected from these young human beings. I might have had a machine gun there, or a revolver; I might have spoken of the laws that were being violated, of how the principles inculcated at Runnymede were being abandoned by these young criminals! I have heard people say things like that to me. I have heard these speeches so often that I know them by heart, and they always conclude with this sentence: "Great God Almighty! is this what America has come to?" I may say to you that I know these men, and they are just as fine and just as clean and wholesome and splendid as you were when you were there. So, when you hear people say that we are violating the laws of the United States of America, I want you to remember that you really must have a saving sense of humor, and you must bear in mind that now and then this physical vigor will come to ex-

pression and that these boys will do things that we do not approve of, and that they will not approve of in their saner moments. Do not misunderstand me. The university stands against all violation of laws, and we believe it is an institution that makes for the enforcing of the laws of our country and community and all of that, but now and then these things will happen. The principles and policies of the University of Michigan are just as sound as sane people would wish them to be.

When I first arrived at the university, I called in all the deans and said: "What do you want to do?" "What have you been dreaming of?" I said: "Come in and talk to me as you have never talked before. If there is anything you need, that you actually need, I wish to know it. We must begin to make our policies before the state legislature meets." We talked for hours and they gave me hundreds of typewritten pages, telling me what their departments wanted. I began to study these and to find out what they really needed. After eliminating all but the essential things, I discovered that we needed right away for buildings and equipment alone approximately nineteen millions of dollars! Then I asked how much has the state given this university in the eighty-five years of its existence? I got the figures together and found that it had had six million dollars in eighty-five years. Of course that made me wonder what they would think of me if I said that right now we needed nineteen millions of dollars. I had a great struggle: Should I tell the truth or not? I am one of the men who always believe that it is best to tell the truth. At the same time I didn't think it was best to say much to the Board of Regents about it at first, because I was new and I was afraid they might think I had lost my mind. So we went to work and cut ten millions out of it before we said a word; and then the Board of Regents discussed it and we decided to ask for \$8,440,000. That looked rather sizeable. When we went to the next meeting of the state assessors they said: "You cannot ask for \$8,440,000," so the committee sat down and struggled for long hours. We had all the facts; we had enough charts and crinkly designs and tables to confuse anyone, even the legislature. We knew how every room had been used and everything else. We set about reducing this program and cutting it down. At the end of seven hours we had reduced it by adding \$250,000. So we asked the state for \$8,690,000. Then we discovered that the state administration had been elected on an economy basis; the government was short several millions! That made it all the clearer that we should have that appropriation. I never studied so hard in my life. I made up my mind I was going to find out what "economy" meant. One

of the members of the legislature said to me: "You cannot expect the state to support the university at that rate, we haven't the money." Now, when anyone looks me in the eye and says that there are just four million dollars for the training of eleven thousand fine young men at the state university, I look at him and ask him if he expects to keep his face straight while he says it.

Now, if you have not heard anything else, hear this: These figures are for one state and for one year—the year July 1st, 1919, to June 30, 1920. Unfortunately we haven't last year's figures yet, but these will do. They are not for the entire United States or for the rest of the earth, but for one state in one year.

How much do you suppose we spent in this state alone for soft drinks? Ten millions of dollars. How much, ladies and gentlemen, did we spend for perfumes in that one year? Seven millions of dollars, about twice as much as for the university. How much did we spend for the moving pictures alone, not the production of the films or the building of the theaters and so on, but how much did we spend for moving picture shows in the state of Michigan in that one year? Thirty millions of dollars! How much did we spend for cigars and tobacco, *exclusive of cigarettes*—I have not lost my mind, this is true—sixty-five millions of dollars, *exclusive of cigarettes*. And how much more for cigarettes, ladies and gentlemen? Sixty-five millions more! That is all right; I'm not finding fault about it; I only wish I had time to put in some of the other little luxuries. In one year in this one state we spent something like \$250,000,000. Then you turn around and say: "How have you the nerve to ask for four millions of dollars for education in one year?" I haven't the nerve; it doesn't take any.

What is the most important thing in the state of Michigan? The automobile factories? The copper mines? No! The most precious thing is that one per cent of big, fine, young men and women who are trying to equip themselves for work in this country and in this century, and when we consider that we spent in one year for luxuries the sum of two hundred and fifty million dollars, I think no one can consider me aggressive in thinking that the state university should have approximately four millions for buildings and equipment.

But there are still two things which I must say. First, if you believe in your university and wish to extend its practical usefulness you must recognize two facts. First, through the fault or neglect of no one, the needs of the university have been seriously accumulating for many years. Your own knowledge of the state and the university will supply the background upon which this statement must be judged.

During the last ten years of James Burrell Angell's life every effort was made to save him and there was not the same urge that there was upon him in the early years. Throughout (1909-1920) the university made remarkable progress, particularly in the support accorded the whole administration of President Hutchins by the legislature and by the great body of graduates scattered throughout the country. It is not generally appreciated how phenomenal this progress has been. It cannot be emphasized too strongly that during President Hutchins' administration approximately \$3,000,000 were given to the university.

But rapidly as the institution has progressed the demands upon it have increased still faster. The great building programs of neighboring state universities have not found their full counterpart at Michigan. Moreover, after the war, with its interference with all programs and with its demonstration of the value of education to the individual and to the nation, a vast new flood of responsibilities poured in on the university, and by comparison made its very progress appear in fact to be an accumulation of needs.

What is the other question? The growth of the institution. In 1889 there were 900 students and now there are 11,000. The university sometimes grows in one year more than in the first 50 years of its existence. You have all heard of Harvard and Yale and Dartmouth as great institutions. They are. But do you realize that we have handed to us over night as many students as are enrolled in all three of them? It is because of the magnitude of the work that we are asked to do that we must have our appropriation. Last year we had 10,623 students. They are not all counted yet this year but we probably have 11,200 or more. When you ask us to do work in those terms, then we in turn must look you in the face and say that if you expect us to do this kind of a job we must have the cash with which to do it. The last legislature was generous, though to be sure it cut the program from six down to four millions; and nothing has pleased me more than the response of the press when there was some intimation that there was to be a delay in the building at Michigan.

Yesterday we let the contract for two of the new buildings, the model high school and physical laboratory, and in July will come others.

Now I wish to say something that will bear very specifically upon your own problems and upon the problems of the University of Michigan, because as I have already intimated to you, if you are not something more than what you are in your profession, if you are not discriminating citizens, where shall we look for leadership in things that concern the people as a whole?

What I am trying to say is this: If we, the State Medical society and the University of Michigan, cannot get along together who in heaven's name can? We are classed as intelligent people. I do not say we are, but we have been scientifically trained; we know the causes and effects and all that; we have trained minds; we pride ourselves upon our comprehensive point of view; that is what the university is supposed to be for, and where in the world can there be co-operation if not between you and us? I beg of you to think that we are honest. I beg of you to understand that nothing in the world will give us more real pleasure than to co-operate with you. We shall be glad to answer your questions. We shall be glad to work with you for the welfare of the people of the state of Michigan.

May I say that the University of Michigan does *not* believe in state medicine and that Dean Cabot and his associates do not believe in state medicine. Before I am through I think you will see that this policy does not apply merely to medicine, but that it goes down into the roots of American citizenship. If I did not believe that every man should have his chance, then I would resign and become a ditch digger. I cannot see how any man can have his chance in state medicine.

If you wish to know where I got this it is in sociology and economics. And so, nothing ever pleased me more than when your efficient secretary and publisher of the State Journal published a statement over his name and Dean Cabot's and mine, publishing the truth. I know a great many things are published, but I wish to ask of you why don't you take us at our word, even if you do think we are crooks? Just try it out and see; and if you can prove that we are crooks 25 or 30 years from now, well and good. But in the meantime, just take us at our word. We are really proud of the relations that exist between us now.

Now, as a background for the things I have tried to say, I wish to add one or two things more before I close. What I want to express to you is this: The first mark of the citizen is open-mindedness. Why do I say this? Because we are face to face with some of the most difficult problems with which we have ever been faced. What are they? When at Yale we debated with Harvard—for the sake of the Yale men present I'll say that we won, and for the sake of the Harvard men I'll say that it was the first time it had been done in 17 years—on the question of the labor unions and the government and everything else. After it was over I went back to my dormitory and said: "That's one thing that is settled." You know it is not settled. One of the most serious problems is still the question of capital and labor. Think what Samuel Gompers said in regard

to William Howard Taft; think what that means to the mind of the thinking citizen. That is one issue. When I say we must be open-minded it is not only in this regard. For example, there is the question how far the government should go. There used to be a time when you and I believed in the postoffice. There was a time, during the war, when we believed in the government taking over the telegraph and telephone and railroad. I come from a section where a few years ago we believed the government should engage in all sorts of things. How far should the functions of the government be extended? Of one thing I am sure, and that is if we really believe in the fundamental principles of American democracy, in those principles of liberty which permit us to say what we really think, we must insist that individual initiative shall have its chance, especially when it can do something better than the government can do it. That does not apply just to medicine or dentistry. It applies to every physical industry with which we are concerned. At any rate, I am hopelessly and incurably of the conviction that the moment America smothers her individual initiative she will yield her leadership in the problems of today. And these problems will come to us. In 10 and 20 years we will still be voting on how far the government shall go. I am using this as an illustration; I might use many others. If we are to lay claim to the prerogatives of American citizenship, we must be sure that our minds are wide open. How much do we know about the coal situation? How much do we know about many other questions that are before us today? Actions in Indiana and Pennsylvania and just within a day or two in Iowa would seem to indicate that the people of America are determined upon progress, and I have been very appreciative of the fact that two or three times you have spoken of progressive medicine. We must get the facts. You and I must base our judgment not upon our individual opinion, but upon the facts which we gather in regard to things and then we must keep to the facts regardless of any individual or group or part or section of the nation. The first mark of a citizen, of a discriminating, intelligent citizen, is that open-minded, progressive liberalism which will not gloss over the social injustices of the day, but which will insist first upon having the facts and will then proceed to enact the proper laws to meet the case. Some people think the ballot box is too slow and they appeal to direct action. Two groups at one and the same time working together as well trained organizations, as people with power to reason, it is our duty to produce a type of citizen who will be open-minded, but not empty-minded. He may be cultured, but not acquiescent in

everything the other fellow may suggest. He may be broad, but he will have ideals for which he will fight and, if need be, for which he will die. That is what it means to be a citizen in America. It calls upon you to recognize the moral obligation to be intelligent.

Then there is another fundamental consideration in this connection—this: There are certain inevitable facts and relations of life which sometimes trouble us and irk us, and which we often feel we would rid ourselves of if we could. But if we try to shake them off we soon find that we cannot get along without them; what we really must do is rather to adjust ourselves to them and make them fit easily into our scheme of things. What you and I must get is a clear-cut, logical, comprehensive view of the truth that life and everything is made up of two things, inside, the dreams and desires that you fashion for yourself, and out yonder the facts of the world. Perhaps you may say: "If I could get rid of them I would be a free man." But that is not the way life is made. Each of us rules his life only as he puts himself into the right relation with his neighbors and his friends and his God.

We must not be only open-minded; we must be public-minded. You can call it loyalty, or being social-minded; you can call it anything you wish, but this is what you must be. Do you remember, when that great floating palace, the Titanic, went down, how they reached out the next morning to get Captain Smith, who was floating on top of the waves, and he said: "Let me go?" He had identified himself with that ship and if it went below the waves he would rather be there than elsewhere. Is there anything that grips you like that? If not, it is time you took an inventory. We must be open-minded and public-minded.

If there is any one thing of which I am perfectly certain today it is that the people of the north and south and east and west are ready to accept their normal obligations to the rest of mankind. Having said that, what has it to do with what I have already said? Just this: We must put the two things together and see that in America, as never before, we must be world-minded. In England not long ago I was talking to a group of Oxford boys—by the way, the highest gift in that institution is the presidency of the union. That position has been held by Gladstone, Disraeli and many other men of note, and now it is held by a graduate of Michigan. (Applause.) I said to those boys: "Do you think England should ratify another treaty with Japan?" You should hear them discuss it, they had it from all the angles. In America I said to a group of college boys: "Do you think England ought to have another treaty with Japan?" and with that great American sense of truth and candor one of

them said: "I didn't know England had a treaty with Japan." I would not have you think that our boys are not as keen as theirs. They are. The American college boy has a mind that is just as fertile as we can make it, and as intelligent, scientifically trained citizens, it is our duty to see to it that in America we get not nationalism, but a splendid consciousness of the world. We must have men and women who can think in the terms of the world. Think of the conditions in Russia today! Think that France is spending three times her income, that even Holland and Sweden are spending more than their income, and remember that we can never find the path back to normalcy, and can never be what we wish to be as a people, until the problems of Europe are straightened out, for upon Europe depends the success of America. We cannot get away from it.

I hope what I have said has not seemed to you unrelated. To me it is all of a piece, and it says that you and I as citizens are trying to be citizens of democracy in the Twentieth Century, and that you and I, whatever we do, must be open-minded and public-minded and world-minded.

THE FUNCTIONS OF THE PUBLIC HEALTH NURSE*

From the Viewpoint of the Health Officer

DAVID LITTLEJOHN, Ph. B., M. D.
HEALTH OFFICER, ISHPEMING, MICH.

Public health nursing, though still in its infancy and to a large degree in its formative stage, has undergone a most remarkable development in the past few years. It is not so very long since the public health nurse, as we know her today, was entirely unknown. The place of the nurse used to be considered as only in the sickroom or in the hospital, ministering to the needs of the sick and the suffering. She still reigns supreme in these places and can never be displaced, because she wields a most beneficent influence in the healing of the sick and in the relieving of suffering. Only those who have come under the influence of her ministrations can fully appreciate her. Notwithstanding the importance of this phase of nursing activity, we are not concerned with it at this time, but are interested in that newer phase of nursing activity, which we are pleased to term "Public Health Nursing."

In considering the "Functions of the Public Health Nurse," we must first of all find out what field is embraced within the scope of her activity. The field of application of public health nursing has grown and is still growing at

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a rapid rate. It includes almost every form of human activity and certainly includes every age, not even being limited by the two extremes of human existence—the cradle and the grave. It begins with the individual even before birth, through its prenatal activities. Just as the field of the health officer has grown until now it is almost unlimited, embracing as it does, every condition, or thing, which in any way reacts upon or influences the health of the individuals in the community under his jurisdiction. So, in like manner, the field of the public health nurse's activity has also become unlimited in its scope.

DUTIES

The duties of a public health nurse may be divided into different lines of work. For example, we may group them as (1) communicable diseases; (2) tuberculosis; (3) infant welfare; (4) child hygiene and (5) school hygiene.

In some instances these groups constitute specialties and so we have the specialist in tuberculosis work and the specialist in infant welfare work, and the same with the other departments of the work. In the majority of instances, however, the public health nurse has to be equipped to carry on all branches of the work. It is this composite type of nursing that we must consider at this time. It makes no difference which branch of the work is involved, from the standpoint of the health officer, they are all viewed alike. They are so blended and interwoven together, that it is impossible to separate them and maintain them distinct.

The nurse engaged in school work is in the very best position possible to discover cases of communicable disease in their early stage, long before they would be found through other channels. In the same way in her infant welfare work, through her home visits, she is in a position to find out possible cases of incipient tuberculosis, long before the attention of the tuberculosis nurse would be called to them. So we see there is this overlapping of activities where we try to keep them distinct. There is also many times a needless duplication of work, which is to be avoided wherever possible. It makes no difference what department of the work it may be, whether it be the composite type of general public health nursing, or the specialist type, the object to be attained is the same, and that is to get in contact with the home, because it is through the influence exerted in the home, that the great benefits result from this work.

The functions of the public health nurse, as viewed from the standpoint of the health officer, must, first of all then, be to form the connecting link between the health officer or the health department and the individual or the

home. The public health nurse is a very vital part of the health department. No really modern health department can function properly without her. She is an essential part of the organization.

Undoubtedly at some time or other every one of us has gone into a factory operating a large number of machines. If we have, then we have noticed that each machine is not operated by its own power. There is a central motor which generates the power and this is transmitted to each machine by means of a belt, which connects the transmission rod with each individual machine. It makes no difference how much power the motor generates, the machines will remain inactive and useless until the machine is connected with the power generating appliance by means of the belt. As soon as this is done, every machine throbs to do its work.

The belt in this factory represents the public health nurse in her relation to the health department and the homes in the community. No matter how efficient a health department you may have, or how active and energetic a health officer you may be, you will get very little health activity and few results in the homes of the community, unless you bring your department efficiency and your official activity and energy into actual contact with the homes and the individual, through the medium of the public health nurse. Some may say that they can secure this contact through the medium of newspaper publicity and through addresses given at public gatherings. We believe that you can to some extent. However, all must realize that the individuals and the homes most necessary to be reached, cannot be reached through either of these channels. The individual and the home most in need of this information, very seldom reads the newspapers and just as seldom will attend a meeting where this information can be given. Therefore, we are firmly convinced that the only real point of contact between this class of individuals and homes with the health department is to be secured by the work of the public health nurse. Through her the energy and efficiency of the health officer and the health department, can be made of real constructive benefit and bring results in the community.

The health officer may devise plans and methods for the control of disease and for the dissemination of health knowledge, but the public health nurse must take these plans and methods and adapt them to meet the needs of the individual and the home in each specific case. We cannot make a rule, or plan a procedure and make it applicable to every individual or to every home. The best that we can do, is to adopt a principle for our guidance, but the application of this principle must be

made so that it will meet the needs of the individual or of the home involved. Therefore, one of the prime functions of the public health nurse is to be able to utilize the principle involved in handling any particular condition, and adapt it in such a manner that it will meet the needs of the particular case. She must be trained to realize that it is not possible to handle all cases in a simple routine manner. She must have learned the difference between the two words "Adopt" and "Adapt" and must practice "Adaption" rather than "Adoption."

The duties of the public health nurse are many and varied. She must play the part of the teacher, the confidant, the diplomat, the intermediary, the supervisor and the sociologist. She must be able to obtain and keep the confidence of the public and of the health officer, with both of whom she co-operates in all her activities. So we see that she is a very complex and composite individual.

In almost every community a large number of the individuals are either ignorant or careless—in some instances they are both—of their physical condition and surroundings. They neglect conditions, which, to them, are seemingly trivial, and pay no attention to defects, which for the time at least, cause but little inconvenience. Either of these conditions, however, may and probably will, eventually become serious, interfering with the health and producing power of the individual. Many, also, are so ignorant of the simplest laws of health, that they develop habits, which must eventually lead to disease, while their environment may be such that it is impossible to maintain a normal health condition of the body. These abnormal physical conditions may and frequently do, develop abnormal mental conditions on the part of the individuals involved. As their physical conditions are distorted, so also their mental outlook becomes distorted. Thus we have developed not only physical disease, but mental disorder as well, the very neighborhood itself oftentimes becoming a center for the development of social disturbance and disorder.

Under such circumstances as these the public health nurse, through her contact with the home and the individual, can discover many of these conditions—physical, mental and social—while in an incipient and corrective stage. She can be the means of bringing these conditions to the attention of the organizations concerned with their correction. In such conditions as these, the public health nurse, by her sympathy and touch of human kindness, can reach and benefit a class of individuals which it is impossible to reach through any other channel. She can secure their confidence and by her advice and encouragement will be able to get results of a successful character by being able to create

confidence on the part of the individuals in the health department.

There is an unfortunate condition which many times exists, where the health officer and the health department are looked upon by many in the community as their enemy, simply because at times it becomes necessary for the department to enforce the health laws of the community or to secure the punishment of others for the violation of some of the health requirements. In this condition the public health nurse can be of the greatest assistance. Through her contact in the home, she is in a position to explain the true condition, that the enforcement of the law is for their protection and not simply to annoy or persecute them. The public health nurse can in this way prove one of the ablest allies of the health officer.

To conclude, in just a word, we might say that the function of the public health nurse might be summed up in a very few words. It is to bring health, hope and happiness to the community in which she works. She brings health through her teachings of the laws of health and the manner of proper living. She brings hope to those who may be afflicted in some way, by pointing out to them the way through which they may be restored to their normal health. Then by bringing health and hope, happiness follows as a natural result, just as daylight follows the darkness of night.

THE VALUE OF WHOOPING COUGH VACCINE*

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In 1921, the writer published the work which had been done upon this subject at this clinic since its inception in 1916. In that paper it is stated that in using the vaccine prophylactically on the apparently healthy child it should be given in two doses, one week apart, first dose being two billion and the second dose four billion. In treating cases therapeutically, it was recommended that vaccine should be given at three-day intervals, first dose one billion, second dose billion and a half, third dose two billion, fourth dose two and a half billion, fifth dose three billion and sixth dose four billion.

During the last year, pertussis vaccine from two commercial houses have been used in order to see whether or not any greater potency could be detected with either vaccine. Information has also been collected regarding each case as for example:

Has the child been exposed to whooping cough? If so, when and in what manner? Does the child wake up at night and cough, and

*Read before the Michigan State Medical Society, June 9, 1922.

if so, describe the cough? Has the child ever had whooping cough before, and if so, when? Did the child develop any sort of reaction after the injection, and if so, what was the nature of the reaction? Does the child show improvement in the matter of violence of the cough and lessening of vomiting?

This year the doses have been considerably increased as indicated by the following table:

COMPANY A		COMPANY B	
1.	½ c. c. equals 1½ billion	1 c. c. equals	2 billion
2.	1 c. c. equals 3 billion	2 c. c. equals	4 billion
3.	1½ c. c. equals 4½ billion	3 c. c. equals	6 billion
4.	2 c. c. equals 6 billion	4 c. c. equals	8 billion
5.	3 c. c. equals 9 billion	5 c. c. equals	10 billion
6.	4 c. c. equals 12 billion	6 c. c. equals	12 billion

The course is not repeated should the child show no improvement. On the other hand if the child responds to the treatment, the course should be followed by three injections of four billion one week apart for the following three weeks.

During the period of 1917 to 1921 inclusive, a total of 8,461 cases of whooping cough were reported in Detroit. Of this number 1,140 cases were treated at Station One. Of these about forty per cent received the large doses of vaccine.

The following table indicates the sex and age of the children treated:

No. of Cases	Boys	Girls
Under 1 year	113	112
1 to 3 years	164	175
3 to 5 years	113	127
5 and up	170	174
Total treated	560	588

In the treatment of the above mentioned cases, it was noted that young children were able to withstand the large doses with even smaller reaction than were the older children.

CONCLUSIONS

From the literature reviewed it seems fair to draw the following conclusions, 1,140 cases observed and reported:

- (1) There is no universal standard of doses for pertussis vaccine to date, except that larger doses than in the past are recommended.
- (2) The doses in general use have been apparently too small.
- (3) The course of the disease in most cases has not been much under six weeks.
- (4) It is my conclusion that the earlier the treatment is given the better the result.

Conclusions drawn from the treatment of about 400 cases of pertussis with vaccines is that a certain number will respond favorably with commercial vaccine. The initial dose should be at least 2,000 million, increasing to 12,000 million. Insist on using pertussis vaccines in whooping cough.

I am indebted to Dr. George T. Palmer, the

statistician for Detroit, for his kind and valuable assistance in securing the statistical figures and charts.

PROFESSIONAL BLDG., SUITE 801.

CHAIRMAN'S ADDRESS, SECTION OF MEDICINE, 1922

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FLINT, MICH.

"Let thy Studies be free as thy Thoughts and Contemplations, but fly not only upon the wings of Imagination; Joyn Sense unto Reason, and Experiment unto Speculation, and so give life unto Embryon Truths, and Verities yet in their Chaos."
Sir Thomas Browne, M. D. "Religio Medici," 1635.

The ultimate aims of this section are to promote the increase of our knowledge of internal medicine, to forward the application of scientific methods in the investigation of disease, and to weigh the value of the newer methods of treatment. It is in no spirit of boastfulness that we call attention to the excellent contributions to medical science that come from this section from year to year. We may properly appreciate these contributions, when we realize that the literary work of the physician is accomplished when the day's work is done, and at a time when many others are seeking amusement or recreation. Moreover, this effort is commendable when we appreciate that there is no other motive or incentive to work than the desire to add to the sum total of medical knowledge, and thus eventually to benefit society as a whole. As one surveys the history of medicine, it would seem that the present time is a most fortunate one for the research worker. The present generation of physicians is more receptive to newer methods than a former one was, and there seems to be less tendency to a destructive type of criticism that probably disheartened investigators in the past.

In the realm of medicine, progress is so rapid that the earnest student is bewildered with the evolution of our knowledge. It requires moral courage to grow away from traditional beliefs, and, in fact, discarded beliefs seldom completely disappear, but keep cropping up now and then. For we must remember that our profession in its evolution does not carry all of its members along at the same rate. The upward struggle of society from primitive ignorance and superstition, from magic and from ritual, has been a toilsome task. We have, however, this encouragement, that with a growing popular interest in the natural sciences, the outlook is most hopeful. True it is that there is a tremendous inertia to overcome. Mankind hugs illusion more fondly to its breast than it does truth because it is more familiar with it. But the world is stirring, probably into a new renaissance and a new democracy is animating all peoples. A newer, more creative

and more co-operative world is being born. May we not expect that the science of internal medicine will do its part through applied chemistry, preventive medicine, applied psychology, and in other ways, in making man the master of his own destiny.

Our methods of investigating disease have radically changed in the last generation or two. Hunter, Lister, Addison, Bright, Louis, Laennec, not to mention scores of others who have added to our knowledge of medicine, were practitioners of medicine who were imbued with the spirit of investigation. The tendency today seems to be to leave research problems to the pathologist, the chemist and to the bacteriologist. Sir James Mackenzie, a keen student of medical education, is emphatic in stating that this conception of medicine actually hampers research and makes practice more ineffective. At the time of Sydenham and Boerhave, diagnoses were made by careful histories, supplemented by inspection. Later, Laennec and Skoda added to these methods the art of physical diagnosis, and further checked up their bedside records with post mortem observation. Is there not a tendency today to lean too heavily toward the laboratory and to neglect history taking and physical diagnosis? The commonest causes of incorrect diagnosis are, careless history taking, neglect of proper physical examination of our patients, and improper interpretation of our findings. It is not my intention to underestimate the value to the physician, of the chemist, the bacteriologist, the pathologist, or the roentgenologist, indeed I believe that there is a crying need for the extension of such laboratory service throughout the state, but it is certain that we cannot substitute machine made diagnoses for intelligent clinical methods.

Mackenzie also very properly points out that our large teaching hospitals are filled with patients in the last stages of disease, and that the beginnings of disease cannot be studied there, nor the circumstances that favored its occurrence. Is it not only possible but desirable that the general practitioner, who for several years past has been well trained in the fundamental sciences, should not resume his work as an investigator? Is it not possible for our county societies to undertake more active work in the investigation of their medical problems? Dr. V. C. Vaughan, in a recent address, recalled some of the early achievements of rural physicians. He pointed out that the first accurate observations on cerebro-spinal meningitis and on poliomyelitis were made by country doctors, years before these important diseases were recognized in centers of reputed medical learning. Valuable as the work of great research institutions may be, we must not forget that physicians may be keen observers, logical

thinkers and skillful in practice, whether located in small villages or in large cities.

It is a very significant fact that our profession has lost opportunities for service by neglecting its whole duty in therapy. Our past indifference to the benefits to be obtained from massage and other forms of mechanotherapy, has resulted in the public rushing in great numbers to the quasi-medical cults. Just now, there is a great popular interest in psychotherapy. Are we, as exponents of modern scientific medicine, going to lose another opportunity of rendering a very real service to our patients by proper psychic treatment? All of us are consulted by a great number of unhappy discontented patients with minor psychic disturbances. Most of us do not seriously attempt to understand the problems of these unfortunates, we do not train ourselves to be successful confessors, and we do not gain or hold the confidence of these neurotics. Some cynic has defined a neurosis as a psychological funk hole in which the neurotic hides to escape the difficulties and responsibilities of life. Even if one should hold such a simple conception of the problem, it is nevertheless our duty to get the neurotic out of his funk hole. Therefore, I believe it is our duty to devote some time to the study of modern psychotherapeutic methods. Whether it be suggestion, persuasion or psychoanalysis, it is not for me to decide. One must be a very superficial observer who does not see that psychoanalysis is spreading beyond the limits of the neurologist's practice. Laymen are reading books and magazine articles dealing with the subject, and it is even not unusual to meet those in whom it is becoming a religion or a philosophy of life. Clinical psychologists are springing up and only a few months ago I received a letter from a well-trained psychologist inquiring as to the chances of a clinical psychologist succeeding in our city. Let us prepare ourselves for this advance.

The tuberculosis problem still demands more attention from us individually and as an organization. No doubt most of us have the proper ideals of what should be accomplished, but we have not been active enough in translating our ideals into action. In 1919, 85 people in each 100,000 of our Michigan population died of tuberculosis and at least 1 per cent of our people are suffering from active tuberculosis. If the battle against tuberculosis is to be won, we must have at least 1,500 more beds in this state for the proper institutional care of advanced cases. The tuberculosis death rate cannot be materially lowered while so many advanced cases are being treated in their homes, thus exposing the rising generation to massive infection. Besides more hospitals, it would be a splendid thing if we could have a state camp for convalescents, where the sana-

torium graduate with an arrested lesion could be prepared for active life.

There is another phase of therapy in which the laymen are intensely interested, namely, scientific dietetics and the science of nutrition. Magazines of the better class are educating the public in the fundamental principles of dietetics and some of the best contributions to the science of nutrition are coming from the laboratories of laymen. One need only refer to the great advances in the last few years in the study of vitamins. If we are to maintain the confidence of our patients, we must not only be familiar with the science, but also with the art of modern dietetics. The increasing prevalence of diabetes in America, and the excellent results to be obtained from accurate dietetic treatment is a simple example of the need of our attention to this problem. Intelligent co-operation with our patients can only be obtained when we remove the shroud of mystery and explain why a certain diet is prescribed. The church has lost ground in the last decade because the intelligence of the pew has grown faster than that of the pulpit, and already the temple of the priest rocks to its very foundations. Is it not our duty to be alert to the general progress of knowledge and to see that the tower of our beloved science remains unshaken?

202 DRYDEN BLDG.

THE HEEL OF ACHILLES

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The one popular but perturbative topic of medical conversation and medical journalism, which latter, of course, is but the more expressive and diffuse reflection of the thoughts and feelings of the medical profession in general, leaders as well as followers, is illuminatingly summed up and concretely expressed in the query: "How to stem the tide of increasingly popular cults and decreasingly popular medical patronage."

Group medicine, health insurance, state medicine, et al., are all perspicuous differing solutions (?) by different minds to the vitally fundamental question of how the physician of today and tomorrow is to continue to make his bread and butter.

The average physician, and naturally that means most of us, has tardily awakened from a Rip Van Winkle slumber to the by no means Utopian fact that it is becoming increasingly difficult to make as good a financial showing

as it was even less than a decade ago, and this despite, or should one more correctly phrase it, on account of, the vast improvements of modern scientific medicine.

The world is incontrovertibly healthier, in some respects, than it was some years ago. Contagious diseases do not so epidemically sweep along their old time destructive paths; improved sanitation and education of the public along health lines has decidedly improved conditions. But more prolific and longer life with less severe disease does not necessarily imply less necessity for medical attention, so lack of clientele cannot thus be argumentatively disposed of.

State boards and hospitals have endeavored to popularize regular medicine by their free examinations and free treatment, and if given to the deserving poor and to them alone one would have less to criticize, but discrimination in regard to clientele would obviously dwarf otherwise voluminous monthly or yearly reports and concomitantly decrease the attending staff, both medical and non-medical. Thus year after year appropriations for state health boards and city health administrations continue to grow until the scope of examinations, supervisions and treatments is only limited by the taxpayers' ability to furnish desired funds, and the health administrator's oratorical ability to hypnotize the powers that be into the belief that all public health appropriations must necessarily, from their very nature, be public benefits and thus a communism of medicine at least is being insidiously but surely established.

In some states we have seen a peculiarly enlightening state of affairs shown by the fact that laws have been enacted prohibiting a physician from advertising to cure venereal disease, and yet the public prints carry notices, paid for by the taxpayers, advertising treatment by the local board of health.

It is a notoriously recognized fact by all concerned that large numbers of free clinic cases are abundantly able to pay and that there is no sound economic reason why the state or city should thus compete with the private practitioner, except as these boards have allowed their political enthusiasm to outrun their eleemosynary discretion.

So long as the average medical practitioner simply thinks of these adverse conditions, just so long will such evils continue to flourishingly develop, until said medical practitioner's independency will eventually be metamorphosed into a stereotyped cog of the machine called state medicine.

In the bulletin of the Wayne County Medical Society, June 12, I note the following:

"Dr. Harry L. Clark is fathering a plan whereby the physicians of the city, in co-operation with the board of health, can take over, on a limited pay basis, all of the treatment of cases, especially C. V. D., now being carried on by the board."

This is a move in a much needed direction and, if the plan be approved, will solve at least one of the general practitioner's problems and be a practical step toward preventing state medicine.

The majority does not necessarily always rule, but it usually can rule if the majority will exchange supineness for activity by application of its numerical weight and influence behind what it wishes to obtain; thus irregular symbiosis of medical practice and public encroachment upon private right can be effectually curbed.

So much for one weakness, now to consider another.

It has been pretty accurately estimated that the so-called drugless cults, such as osteopathy, chiropractic, new thought, applied psychology, Christian Science, etc., etc., now number more adherents than does the regular medical profession. Here is a problem which the physician himself alone can and must satisfactorily solve; no referring of this question back to overzealous state and civic medical activities; the practitioner and the practitioner alone has to answer: "Why the drugless cult?"

Have you ever sat down and endeavored to seriously reason out why there are so many chronically suffering people always in evidence, despite our vaunted twentieth century science? You stroll down the street and meet Dr. A, who queries: "How's business?" You probably reply: "Oh! Slow. Very healthy season." And passing on you both encounter scores of people, who, though not confined to the house, yet give ample evidence of being more or less seriously sick.

If Emerson's mouse trap idea be correct, would you not expect that those sick people should be making "a path" to your office, which, so far from being located in a "wilderness," is practically next door to all these sufferers? But remember Emerson's qualifying attribute; can you do any better than anyone of the numerous physicians whom those patients have, at some time or another, consulted and consulted repeatedly?

Medical and surgical science has accomplished and is accomplishing marvels of healing, but it is always the failures in medicine that attract the unthinking attention of the public, for reasonably, the failures visualize attention, while the cures only blend imperceptibly among the normals.

Now it is a fact not to be denied or ignored, that some of these apparent incurables have later become curables or at least restored to some degree of normalcy and that, *mirabile dictu*, through the attentions of some one or other of these anathema cults, and though countless multitudes still remain uncured, even by the cults, the important fact nevertheless remains that if an "irregular" with little or no science back of his irregularity, and usually arguing, when he does argue, from entirely wrong premises, can even occasionally achieve what medical science has failed to do, it behooves the M. D. to investigate the camp of the enemy, so that he may thereby be enabled to not only duplicate, but, with his scientific training, many times triplicate such curative results.

Some of the medical profession are already fully awake to the truth that there are many cases of disease and disordered function in which surgery is clearly not indicated, and drug medication been found wanting or likewise not indicated, and yet many physicians, unfortunately for themselves as well as for their patients have not yet realized, that with drug medication on the one side and surgery on the other, valuable and essential as these arts so often prove to be, there exists a hiatus which means inevitable defeat in the attempted relief of many conditions.

Physio-therapy, which is a broad term correctly and scientifically embodying all mechanical treatment, whether by manual manipulations or derived from radiant and current electricity, is the missing requisite which will complete the perfect medical triad—surgery, medicine and physio-therapy.

If, as stated, so many physicians are unfortunately unaware of the value of physio-therapy or fatuously ignore it as "incompetent, irrelevant and immaterial" to the practice of medicine, it is surely pertinent to give at least a cursory insight into its field of usefulness, and thereby endeavor to bestow sight upon the blind leaders of the blind. Take the protean symptoms complex of those two terms, rheumatism and neurasthenia, terms which, though medically recognized as being neither scientifically correct nor nosologically definite, yet are so generously made use of by both laity and profession. The terms cover a multitude of medical sins of omission and commission, as well as diagnostic ignorance; these terms may and too often do cover cases of arthritis, neuritis, myalgia, dyspepsia, neuroses and countless indefinite symptoms of perverted function only too real to the sufferer, though not always demonstrable to the medical attendant.

A correct diagnosis may or not be obtainable, but whether or not, medicine and surgery alone or combined will quite often leave much to be

desired in the way of cure or even alleviation in the majority of such cases.

If a certain well known diagnostician is correct in his published statement that three-fourths of our laboriously deducted diagnoses are later proven incorrect to some more or less degree, then sequently, three-fourths of our drug prescribing and surgery must necessarily be also more or less incorrect. One cannot remove a healthy organ and reasonably hope thereby to benefit a diseased one, nor can one prescribe the indicated remedy for a certain disease and expect to profitably affect an entirely different pathogenicity; we can all regretfully confess that much useless as well as much useful medicine and surgery has been inflicted upon suffering humanity.

Persistence in such tactics inevitably leads to demoralization, and the physician who knows or recognizes nothing but drugs and surgery, especially for his "chronics," must expect to be more or less occasionally wounded by seeing some of his "incurables" apparently cured by irregular outside influences and usurpers of the healing art.

Some physicians are obsessed with the idea of always finding something to kill the bug, or else surgically removing the parasite along with the host. Disease means dis-ease, not health; which, further analyzed, means that one's natural resistance toward ever present germs and diseased conditions has been weakened, through hygienic errors of omission and commission. Now, if we would teach and practice more building up of our natural forces through more practical attention to diet, habits and exercise; see that food is really food and not merely aesthetic refinings; see that we come in contact with a proper supply of pure air and sunshine; and, lastly, stress the thought that mind does very largely control matter, to some extent, and therefor suffering humanity should stress the thinking of health more than of its antithesis, disease, we would have no os calcis vulnerably exposed to assaults by cults and state medicine.

In this civilized age, Anno Domini, we cannot, under ordinary circumstances, comply with all these enumerated requisites for health, but, if we will reduce the important simplicity of "getting back to nature" down to its procurably simple essentials, and permit physiotherapy, through its trained manipulations, and electricity, to supply the deficiency in the patient's healthful essentials of light, heat and exercise, we will have made another decided advance toward overcoming state controlled medicine and the popularity of cults by thus bridging the therapeutic gap between drugging and cutting.

SUITE 610, SCHERER BLDG.

RADIATION IN THE TREATMENT OF BLOOD DISEASES*

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Under the general term "blood disease" there may be included a rather poorly defined group of conditions which really have nothing more in common than a definite primary and constant disturbance of the hematopoietic system. This may be manifested in various and sometimes widely diversified ways, so that the presenting features of these disorders may have no points of resemblance at all. Clinically, there may be nothing in common between a case of leukemia and one of polycythemia, but both conditions are dependent upon a perfectly definite although vaguely understood blood defect. There may or may not be a characteristic blood picture, depending upon whether or not the primary disturbance of the blood forming organs is reflected in the peripheral circulation.

In the treatment of this group of diseases radiation has a limited field of usefulness; but with the limitations once definitely understood, X-ray and radium therapy may bring about most gratifying results. In no case does radiation cure the affection; but it may often relieve distressing symptoms, prolong life for a variable length of time, and restore the patient to a greater or lesser degree of useful existence.

The technical details of the actual administration of Roentgen or radium rays will not be considered here, that being a matter upon which only the experienced radiologist is qualified to speak. The results of treatment, however, may be observed by anyone; and the intelligent management of a case with a view toward obtaining the maximum benefit should be a matter of interest to us all.

Definite clinical results from radiation are seen only in the chronic leukemias, in Hodgkin's disease and in polycythemia. In certain rare diseases of the blood, particularly hemolytic jaundice, X-ray treatment is claimed to be beneficial, but the results thus far are of questionable value. Nothing authoritative can

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*From the Department of Internal Medicine, Medical School, University of Michigan.

be said until more data are available and the method of treatment more definitely worked out. As a means for reducing the size of the spleen preparatory to splenectomy, this treatment may prove to be valuable. In acute leukemias, pernicious anemia, Banti's disease and practically all the other primary disorders of the blood forming tissues, radiation exerts no beneficial influence upon the pathological process and is useless.

CHRONIC MYELOGENOUS LEUKEMIA

Chronic myelogenous leukemia shows the most satisfactory response to radiotherapy. Exposure of the enlarged spleen to the therapeutic rays usually results in a marked decrease in its size, a reduction in the number of circulating white blood cells, improvement in the accompanying anemia and alleviation of symptoms in general. The manner in which this change occurs, and the real underlying reason for it are obscure. The bone marrow itself is the seat of the pathological process, and just how it is that radiation applied to the spleen exerts so powerful a depressing action on the white cell elements in the remote bone marrow is a matter for conjecture and study. Leucoblastic tissue generally is very susceptible to X-ray or radium, but the effect in this case is not a direct one because treatment applied to the long bones themselves is usually not so effective as that given over the enlarged spleen. The destructive effect of the therapeutic rays may be very temporary, lasting only as long as the immediate lethal action of the rays, and being promptly overshadowed by the recurring leucoblastic proliferation. Such a state of affairs is reflected in the peripheral circulation by the continued presence of large numbers of immature white blood cells. With more effective treatment, a prolonged change occurs both in the bone marrow and the blood which lasts far beyond the time of action of the radiation itself. Such a remission in the progress of the disease is measured in weeks or months; and it is the object of all treatment, in the present state of our knowledge concerning this affection, to produce remissions. The fact that remissions may occur spontaneously, as they do in so many of the chronic diseases of the blood, should not be an argument for withholding treatment when it is needed. Radiation given at a time when a natural remission is about to occur will show its greatest effect, and general improvement will be the most prompt and lasting.

Because it has been found that a reduction in the number of circulating white blood cells usually accompanies a remission or other more temporary improvement following radiation, and that an increase in their number accompanies a relapse, the leucocyte count has been used

as a convenient index of the activity of the disease and as a guide for treatment. It is the general practice to treat when the white count is high, and to withhold treatment when it approaches normal. When the leucocytes have dropped to about 20,000 per cu. mm. it is customary to suspend treatment for a time at least, because further radiation is likely to reduce them below normal or even to remove them entirely from the circulation. This effect is undesirable because it robs the observer of a good means of keeping track of the activity of the bone marrow, and further because it may be accompanied by other and more serious signs of marrow depression, such as decreased red blood cells and platelets. The practice is then, in effect, to treat the white blood count; and for the majority of cases during the less critical times in the course of the disease, this will give good therapeutic results.

But it must be borne in mind that myelogenous leukemia is something more than an increase in the circulating white blood cells. This becomes only too apparent on occasions when symptomatic improvement is not commensurate with the reduction in the number of leucocytes, or when the hyperleucocytosis is not itself a prominent feature of the disease. Under these conditions it is necessary to establish other criteria for the control of radiation, because treating the white count alone will not accomplish much good, and may sometimes be a mistake. In this connection, it is desirable to emphasize the marked degree in which the *character* of the circulating leucocytes reflects the state of activity of the bone marrow. A large proportion of the white cells in the blood are of abnormal type—immature, only partially developed, and thrown into the circulation far ahead of time because of some lowering of the threshold of cell production. The proportion of young white cells in the blood, and the degree of their youth, is thus a very good index of the activity of the bone marrow pathology. This is a better measure of it than the mere cell count because young white cells—myelocytes and myeloblasts—are a more constant feature of the blood picture than increased numbers alone. During a remission these young cells tend to disappear from the blood, while in a relapse they reappear in increasing proportions, and their fluctuations may often be detected before there is any significant change in the total cell count.

The differential blood picture is thus the best single guide for treatment. It reflects the state of the bone marrow and hence the activity of the disease, very accurately. Detailed critical blood examinations should always be made accompanying treatment, and the amount of radiation in this way carefully controlled. The

close adjustment of the dosage to the needs of the case is more than a matter of mere scientific accuracy, because its effect may be seen in the further course of the disease. The time eventually arrives, in every case under treatment, when radiation will no longer induce a remission, and finally when it will not even cause the most temporary improvement. This state of affairs is dependent partly upon the increasing severity of the disease itself and partly upon the amount of previous radiation. The cells become more and more resistant to radiotherapy in a manner roughly analogous to the acquiring of tolerance for certain drugs. It is, of course, desirable to postpone this occurrence as long as possible, by the proper control of treatment through careful study of the blood from time to time. Overtreatment is to be avoided because it contributes nothing to the temporary improvement and may make subsequent remissions more difficult to induce. Moreover, it is sometimes a factor in the appearance of early and fatal depression of bone marrow function. Myelogenous leukemia is not infrequently terminated by a secondary aplastic anemia.

The occurrence of a relapse following a period of relative comfort may often be foretold from the change in the character of the leucocytes and the increasing proportion of young forms. Treatment given early in a relapse is more apt to be effective than after the change has become well established, and improvement may be brought about at this time by a relatively smaller amount of radiation than that needed later. Prompt treatment under such circumstances will conserve the therapeutic agent, which may be a factor in actually prolonging the life of the patient. During the terminal stages of the disease the blood picture may not change much with increasing symptoms, and it is then, of course, unreliable as a guide for treatment. In such a case radiation is not likely to have any effect, but it should not be withheld on account of a low leucocyte count, until a trial has demonstrated its futility.

It is evident that the intelligent treatment of myelogenous leukemia requires close co-operation between the radiologist and the clinician. The optimum time for radiation, and consequently the best therapeutic results, can be determined only by regular and continued blood examinations and clinical study, from the time the case first comes under observation until the time of its termination. To treat a case only when increasing symptoms drive the patient to consult his doctor is certainly inadequate. It falls just as far short of proper therapeutic management as an attempt to treat diabetes without regular examination of the urine. To

turn a case completely over to the radiologist as soon as the diagnosis is established, for a routine course of treatment, is to neglect the individual and distinctive aspects of the particular case. Unless the radiologist proceeds to do the internist's work for him, this will usually rob the patient of the maximum degree of benefit. It is always necessary to control Roentgen or radium therapy by detailed and repeated study of the blood. This should be done preferably at a time relatively remote from the last preceding treatment, when the temporary effects of the radiation will not confuse the picture, and only the more permanent change in the blood will be apparent.

Such observations on a very few cases, repeated regularly throughout the cycle of remission and relapse, will quickly demonstrate that every case of leukemia has its own peculiarities with respect to severity, rapidity of change, and response to treatment. The pendulum seems to swing back and forth between remission and relapse, at a different speed in every case. There is undoubtedly an optimum time, as well as dosage, in radiating these cases, somewhat as the pendulum is affected differently at different times in its swing and by varying forces. It may not always be advisable to attempt to reduce the leucocyte count by treatment to a level near normal. It may be impossible to maintain it there without almost constant radiation; while a somewhat higher level is much more easily maintained, with relatively few immature cells in the blood and with comparative freedom from symptoms. These points are to be gleaned only from careful study of the individual case. They are not unreasonable refinements in therapeutics because experience has shown that they contribute notably toward obtaining better results, and sometimes with less treatment.

CHRONIC LYMPHATIC LEUKEMIA

Chronic lymphatic leukemia is in general less amenable to radiation than the myelogenous variety. The same type of results may be obtained, however, though in lesser degree; and the same criteria for the control of treatment hold good. The differential blood picture is again the best single guide for radiotherapy. In this disease the presence in the circulation of young abnormal lymphoid cells carries the same significance as do the myeloid cells in the other variety. They cannot be made to disappear from the blood so readily, as would be expected when the course of the disease in general is more difficult to influence. It is not altogether clear that radiation does anything more in lymphatic leukemia than to relieve symptoms. The duration of the disease is certainly not markedly affected. But prompt and properly controlled radiation will often re-

duce the glandular enlargements when applied locally; and routine study of the blood may make it possible to anticipate and forestall their recurrence. In this condition it is often possible to treat the local manifestations of the disease very successfully, that is, to reduce the glandular tumors, while the general condition of the patient remains almost unchanged. Radiation must be applied not only to the enlarged lymph glands, but to the splenic tumor as well, to obtain the maximum degree of benefit.

HODGKIN'S DISEASE

Hodgkin's disease may be successfully treated by radiation, for a time. Here again treatment probably does not significantly prolong life, but it does relieve the symptoms referable to pressure from enlarged lymph glands. It is now recognized that Hodgkin's is a systemic disturbance, and thorough treatment should include all accessible lymph gland structures in the body—the enlarged nodes first and after they are reduced in size, the apparently normal ones. The initial course of treatment is usually very effective, and many a patient deludes himself in the belief that a complete cure has been accomplished in spite of his physician's assurance to the contrary. The disease inevitably recurs after a period varying from a few weeks to a few months, and radiation is then less effective. Eventually, as in the leukemias, its effect is lost completely.

The blood picture is not a guide for treatment in this condition because there are no characteristic changes. Prolonged radiation will usually reduce the leucocyte count quite markedly, and when this occurs it would seem to indicate that radiotherapy has reached the limit of its usefulness. Such cases, when radiated still further, usually do badly. The guide for treatment in this disease is a general one—the size of the enlarged glands when these are accessible to examination, and the general condition of the patient.

POLYCYTHEMIA

Polycythemia, erythremia or Vaquez's disease, as it is variously called, is not very responsive to radiation. It is rather uncommon in occurrence, which makes a consideration of it at present less important than the conditions already mentioned. Red blood cells are among the most resistant to radiotherapy, while white cells are among the most susceptible, and it is usually difficult to bring about any reduction in the red cell count without also causing marked destruction of the circulating leucocytes. It is sometimes possible, however, to reduce the number of red cells, with accompanying relief of symptoms, either by radiation alone, or combined with benzol given by mouth. Treatment is given over the spleen

and long bones. Cases with splenomegaly respond better than those without, perhaps because the enlarged spleen offers a better target for the therapeutic rays. Since the primary object of treatment is to reduce the number of circulating red cells without markedly damaging the leucocytes, radiation must be very carefully controlled by routine study of the blood. A rapid fall in the white cell count is an indication for stopping treatment. This is an extraordinarily chronic disease, with frequent fluctuations in severity, and the results of treatment are difficult to evaluate.

TYPES OF RADIATION

For therapeutic purposes with reference to diseases of the blood, there are two principal types of radiation—X-ray and radium. The ultimate results from these two are closely comparable. Radium furnishes more penetrating rays, and the effect of treatment is more quickly seen; but with a somewhat longer time X-ray will produce the same results. The limit of helpful treatment in either case is far short of controlling the progress of the disease. Occasionally a case which no longer responds to X-ray, may respond to radium for a time, but never for long. The practical use of improved X-ray apparatus, designed to give a ray much like the harder radium rays in penetrability, is now in the process of being worked out. Too much must not be expected of this apparatus, however, for its best results probably cannot surpass the already known results of radium itself.

THE JOURNAL
IS
YOUR FORUM—
WE INVITE YOU
TO UTILIZE
IT FOR THE
EXPRESSION OF
YOUR VIEWS
ON
MEDICAL SUBJECTS

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

FUTURE PUBLIC HEALTH INTERESTS AND ACTIVITIES.

VI.—THE ANNUAL OVERHAULING— PHYSICAL EXAMINATION

JOHN SUNDWALL, Ph. D., M. D.

Professor of Hygiene and Director of the Department of Hygiene and Public Health, University of Michigan, Ann Arbor, Mich.

Genuine achievement in our "health promotion" or "physical efficiency" program will come only when people will begin to look at their bodies as machines which are in constant need of intelligent care. We must develop this "machine attitude" toward the body on the part of the public. Now that the automobile is the machine of fashion and interest in it is almost universal, let us adopt this slogan in "putting over" the "physical efficiency" interests and activities of public health: "In order to run smoothly and efficiently, your body demands the same care as does your automobile," or "Treat your body as you do your automobile."

To maintain an automobile at its maximum of value and efficiency and to be reasonably assured that it will function well for a long time it is indispensable that the operator thereof be familiar with its internal workings. Furthermore, he must know the actual needs of the machine along the lines of lubrication. Again, the minimum amount of gasoline or fuel essential to procure the most power or energy and the proper mixture of air and gasoline must be ascertained and applied. The skillful and intelligent operator knows that bolts must be tightened frequently, that defects must be remedied and that the machine is in constant need of periodical overhauling. Constant vigilance and care assures to the automobile a long life of efficiency.

Now, if each individual would take the same rational attitude toward and interest in his body machine, then the goal of physical efficiency would soon be within our vision. Can we develop on the part of the public this rational and sound "machine attitude" toward the physical body?

In our endeavors "to put over" a far reaching and effectual "personal fitness" program, appeals must be made more and more to the other vital interests of life rather than to the health phases. The term "health" has been overworked in a large measure. One may better resort to those fundamental impulses and interests which are normally present in most people. For example, the average individual wants to be successful. He has an impelling desire to win. He dreams of leadership and power. He longs to prove himself of genuine value to society. It is, therefore, to these impulses that the "physical efficiency" objective should appeal. It is not difficult to convince people that man's ability to do physical or mental work depends upon his ability to generate force; that is, to convert food, water, air into organic faculty, then into

effective energy and that whenever man rises to prominence in any of the walks of life it is because of his generating powers. As society becomes more complicated and as competition becomes more keen, the energy generating abilities of one's body machine becomes paramount.

In our future attempts to inspire the boy and girl to achieve those "heights that great men reached and kept" let us remember that the boy and girl must be ineradicably impregnated with this fact—that in our day and age physical efficiency is the first and foremost requisite to success in life. As Sargent has said, "There is a dynamic relationship between good digestion, circulation and respiration and the ability to make a life's labor of mercantile, professional or highly intellectual pursuits." In the strenuous battle of life a time comes in the experience of everyone when a sound body is the last great issue. It is the crisis. If one has not the strength to "put himself across," then someone else who has not neglected his body will forge ahead and "grab" that success.

Intelligent and effective care of the body machine with a view of getting out of it a long life of high degree generating power includes several factors. First, the individual must know something about the structure—atomy, and something about the functions of the various organs—physiology. However, caution must be exercised, in advancing the physical efficiency program, not to lay too much stress on structure and function. This may prove to be too laborious and disinteresting to those to whom the physical efficiency program is being applied and, therefore, result in defeat of the genuine objectives in mind. The important thing is to make the individual feel that he is dealing with a machine of infinite value. Compare his food or fuel intake with gasoline. Practically everyone knows that the measure of automobile efficiency is the number of miles one can get out of a gallon of gasoline. In other words, it is the maximum of power derived from the minimum of fuel that determines in a large measure the value of a machine. At least people are interested in it. Now then, the same principle should be applied to food with a view of avoiding overingestion and the evils thereof, such as the degenerative diseases, etc. The avoidance of unnecessary wear, tear, and of exposure whereby the scrap heap is soon reached, applies equally to both machines. Prevention and correction of defects; in the case of the automobile by tightening bolts, avoiding rust, proper lubrication, and "seeing to it" that the gasoline and air essential to combustion and power are free from foreign substances and in the case of the human machine by applying the principles and practices that have already been considered in the previous discussions; contribute much to the life and efficiency of the two types of machine. It must be remembered, however, that in the human machine, a new part cannot be substituted for an old worn out one.

Thus the similitudes of the two machines can be carried on almost indefinitely.

Not only from the physical standpoint should this

"machine attitude" towards our bodies be cultivated, but it is of equal importance from the mental point of view. The efficient operator of the automobile takes a sane, rational attitude toward his car. He is not disturbed with worries, anxieties, apprehensions or fears. A similar mental attitude must be developed toward the human machine. We must by all means avoid inculcations of introspections and other forms of neurosis and psychosis which, in the past, have contributed so much to invalidism and subnormalcy.

XI. Physical Examinations. I have purposely delayed the discussion of physical examinations; perhaps the most important of all the interests and activities concerned with health promotion—physical efficiency—the attaining and maintaining of a sound, active, vigorous and harmoniously developed body and which is to be the chief concern of the new public health; until attention had been called to the other important factors essential to the promotion of health.

For the purpose of concreteness or visualization, it may be well to put our ideas regarding physical efficiency and its various approaches or supports (already discussed) into some form of art. Let this be a fresco or a mosaic or a bas-relief. Perhaps to chisel it in marble would be more appropriate. Some such figure of ideal physical perfection as Venus of Milo which is the very embodiment of beauty, strength and serenity, or Fraxitile's Hermes, may well represent our ideals of physical efficiency or personal fitness. The figure would be supported by a number of Ionic columns aesthetically and harmoniously arranged, and each would symbolize those interests and activities or supports by which physical efficiency is maintained. One column would represent food or nutrition; another, air; a third activity and so on until all the approaches to or supports of physical efficiency are represented such as sex hygiene, mental hygiene, avoidance of bodily poisons and the prevention of defects. The base support for these columns would be the solid rock of physical examinations. In other words the very foundation of our physical efficiency program is the physical examination. Without this basic solid structure our efforts directed along the lines of health promotion will be of little or no avail. The statue will crumble.

Again let us return once more to the desired "machine attitude" toward our bodies. Every efficient operator knows that his automobile is in need of periodic overhauling. This, in spite of the fact that every care is manifested in its operation. He realizes that from time to time his machine must be "gone over" by the expert.

Likewise, the human machine is in need of periodic overhauling. Let us say that this overhauling should take place at least once each year from the cradle to the grave. The annual physical examination, is after all, the most important activity in all health promotion programs. We shall learn later on that it is likewise the predominating factor in that other interest of public health—the control of communicable diseases.

No effectual public health activities either along the lines of health promotion or disease prevention can be maintained unless ample provisions are made for physical examinations.

They are of inestimable value in all applied hygiene activities. In infant welfare, the periodic physical examination will do much to prevent heart disease and other on-coming defects. It offers unusual opportunities for that personal or human touch which is so essential in all efficient public health work. Here the mother can be taught the hazards of babyhood and the fundamentals of health promotion and disease prevention as applied

to infant welfare. In fact, no more timely occasion is conceivable for intensive education along the lines of health than is that presented by the physical examination.

Already we have learned that from seventy-five to eighty per cent of our school children have defects which are potentially or actually detrimental to health. These defects, in the very largest measure, can only be discovered by scientific physical examinations. Schoolmen are now beginning to appreciate the fact that physical efficiency in school children must be made a twin companion of intellectual progress and, therefore, they are interesting themselves more and more in the establishment and maintenance of all facilities whereby personal fitness in pupils may be acquired and sustained. Furthermore, schoolmen are realizing that the annual physical examination of each pupil is the most effectual procedure by which this can be brought about.

Assuredly, if universal annual physical examinations and overhauling were the vogue with children then our problems concerned with physical subnormalcy would be largely solved. Physical defects would tend to disappear as if by magic. Another nation-wide health census such as the recent draft examination would not reveal the appalling fact that one-third of our young men are so subnormal that they cannot answer the nation's call for defense.

The annual physical overhauling is of inestimable value in adult life. It is in the early adult period that the degenerative diseases are prone to begin and which contribute so much to our national morbidity and mortality. As a rule these retrogressive changes begin and progress and reach irreparable stages before the individual is cognizant of their presence. And right here we may well emphasize the supreme importance of the annual physical examination, it picks up the defects that the individual himself cannot and in a measure should not discover for himself and, therefore, corrective measures can be applied before the irremediable stages are reached.

To illustrate, let us insert here the results of physical examinations conducted by the Life Extension Institute of New York City.*

"First: Insurance policyholders, to whom the privilege of free medical examination at certain intervals has been extended by the life insurance companies having contracts with the institute to perform this service.

"Second: Employees of commercial houses, banks, trust companies, etc., to whom this privilege has been extended by their employers who contracted with the institute for this service.

Results of the Examination of Life Insurance Policyholders by the Life Extension Institute.

	Per Cent
Normal	2.40
Imperfect—Advice needed regarding physical condition or living habits	97.60
Not aware of impairment	93.04
Referred to physician for treatment	65.75

CLASSIFICATION OF IMPAIRMENTS

Moderate to Serious	
Organic heart disease	4.50
Arteriosclerosis—thickened arteries	6.27
High or low blood pressure	23.50
Urinary—albumin, sugar, casts	53.60
Individuals showing combined disturbances of circulation and kidneys	15.83
Nervous92
Lungs—possible tuberculosis	1.40
Venereal77
Minor to Moderate	
Functional circulatory—rapid, slow or intermittent pulse	7.17

*Some Results of Periodic Health Examination, E. L. Fisk, Pop. Science Monthly, April, 1915.

Urinary	25.05
Digestive organs	12.32
Constipation	27.53
Nose and throat	15.92
Ears	10.30
Decayed teeth and infected gums	11.76
Anemia	2.69
Skin	3.42
Errors in diet (pronounced)	30.85
Errors in personal hygiene	68.04

Physical Defects

Faulty vision—uncorrected	5.51
Flat foot	4.11
Faulty posture	9.58
Rupture—no truss	1.12
Overweight—important	12.23
Underweight—important	9.13
Unclassified	12.30

The above statement shows the percentages that the various impairments are of the whole number of individuals examined. Many policyholders showed several combined impairments. Average age 35.

Results of the Examination of Employees of Commercial Houses, Banks, Etc., by the Life Extension Institute.

	Per Cent
Normal	3.14
Imperfect—advice needed regarding physical condition or living habits	96.86
Not aware of impairment	96.69
Referred to physicians for treatment	59.00

CLASSIFICATION OF IMPAIRMENTS

Moderate to Serious

Organic heart disease	5.38
Arteriosclerosis—thickened arteries	13.10
High or low blood pressure	25.81
Urinary—albumin, sugar, casts	35.63
Individuals showing combined disturbances of circulation and kidneys	12.77
Nervous73
Lungs—possible tuberculosis99
Venereal46

Minor to Moderate

Functional circulatory—rapid, slow or intermittent pulse	11.37
Urinary (high and low specific gravity, crystals, indican, etc.)	21.62
Digestive organs	6.12
Constipation	14.70
Nose and throat	34.53
Ears	16.96
Decayed teeth and infected gums	22.22
Anemia	2.72
Skin	6.38
Errors in diet (pronounced)	13.70
Errors in personal hygiene	31.60

Physical Defects

Faulty vision, uncorrected	16.03
Flat foot	3.19
Faulty posture	7.38
Rupture—no truss	1.79
Overweight—important	5.45
Underweight—important	19.16
Unclassified	7.38

The above statement shows the percentages that the various impairments are of the whole number of employees examined. Many employees, of course, show several combined impairments. Average age 30.

"The first group is composed of individuals who apply voluntarily for this service. It has been assumed that many of these people had at least a subconsciousness of impairment. Nevertheless, 93 per cent of those found impaired were, according to their statements, unaware of any impairment.

"Although the second group were not compulsorily examined, a practically unanimous consent to the examination removed any element of self-selection, and the group may be regarded as fairly representative of the average condition obtaining among the employees of such business institutions in large cities.

"In studying these figures, it should be borne in mind that the particular purpose back of this system of examining is to secure a complete picture of the individual, and thus all impairments or imperfections found have been carefully recorded without

regard to the present state of knowledge as to their significance. Examination for life insurance, for tuberculosis, for eligibility for employment, for ascertaining the influence of particular occupations or hazards, etc., and other physical examination for special purposes might produce a different record. In the institute's work, however, information is sought for the sole purpose of assisting the individual to raise himself to a higher standard of health, and efficiency; hence, any departure from the normal is recorded, and particular attention is given to harmful living habits carrying potential impairment.

"The noteworthy features of the record are as follows:

1. The high percentage of impairments or imperfections.

2. The high percentage of disturbances or impairments of the heart, blood vessels and kidneys.

3. The large percentage of individuals in both groups who were not aware of impairment—93 per cent among insurance policyholders and 96 per cent among commercial groups.

"Among the insurance policyholders 65 per cent, and among the commercial groups 59 per cent, were sufficiently impaired to be referred to physicians for treatment with full report of the conditions found. In appropriate cases instruction in personal hygiene was also given.

"Those in the commercial group were examined by trained examiners of the home office staff, all of whom followed uniform methods and standards. All laboratory work was done at the home office, thus eliminating possible errors from differing standards of examination or technique. Those in the life insurance group were scattered throughout the country, but were examined by physicians specially selected and instructed regarding the standards and methods to be observed.

"Probably the most striking and important fact revealed by these examinations is the large percentage of young men showing arteriosclerosis, or thickening of arteries. This condition is one of slow growth, and it is not, after all, surprising, in view of the high and increasing death rate from cardiovascular troubles in middle life, that we should find the beginnings of these chronic changes in early life.

"The lesson from these figures is that we must often start in at 25 or earlier to prevent a death from apoplexy at 45.

"The checking of the degenerative maladies is not such a spectacular matter as the stamping out of typhoid, yellow fever or tuberculosis, but the possibilities for effective work through personal hygiene and guidance in correct living habits are quite as great. All along the line we find magnificent opportunities for improvement, teeth, eyes, nose, throat, ears, circulation, living habits, etc.

"Those who accept the average man as a fairly able-bodied citizen seldom realize how far below his attainable condition of physical soundness and efficiency he is.

"To some, this may seem like a study in pessimism. It may smack of pathological detective work which seeks to uncover human frailties and conjure up a Cassandra-like vision of "Woe, woe, to the human race." This is a superficial and pitifully inadequate view of activities fraught with tremendous possibilities for racial advancement.

"What about the harmful effect of mental suggestion? For some years we have had a surfeit of "mental suggestion." Everything from stone-in-the-kidney to bow-legs has been ascribed to mental suggestion, or to something buried in the psyche, and there has been a tendency to encourage a tim-

idity regarding even the thought of disease. This does not make for a brave and virile race. Men who consider themselves physically grave will shiver at the thought of tuberculosis, cancer, or heart disease. It is well to defend ourselves from disease, but not well to fear it. Just as it is well to prepare against a foreign enemy while not fearing to meet him eye to eye. Unfortunately, a considerable proportion of our population is constitutionally pusillanimous with regard to disease. Such people must be safeguarded from undue worry, but we should endeavor to train them to a more courageous attitude toward life and its disease perils.

To avoid looking for impairment lest we find it, and the same time find an opportunity to check the sapping of our physical foundations, is certainly a naive philosophy. Will the 'scare' be less when the actual breakdown occurs? It will then be a scare without hope as against a scare with hope.

"The mind should not be constantly focused upon physical condition, but common-sense measures taken for the correction of the impairments, and then renewed courage and confidence should accompany the knowledge that there is no obscure or unknown or neglected condition at work undermining vitality."

Official Minutes of the 57th Annual Meeting, Michigan State Medical Society, Held in Flint, Mich., June 7, 8, 9, 1922

FIRST GENERAL MEETING

First general session of the 57th Annual Meeting of the Michigan State Medical Society was called to order at 10:15 A. M. on Thursday, June 8, 1922, by the President, Dr. W. J. Kay, in the ballroom of the Hotel Durant, Flint.

Invocation: Rev. Fr. Patrick Dunnigan,
Major Chaplain, Michigan National Guard.

In the Name of the Father, the Son and the Holy Ghost: Our Father who art in Heaven, hallowed by Thy name; Thy kingdom come, Thy will be done on earth as it is in Heaven. Give us this day our daily bread and forgive us our trespasses as we forgive those who trespass against us. Lead us not into temptation, but deliver us from evil, for Thine is the power, the kingdom and the glory for ever and ever, amen.

Address of Welcome: Mayor E. W. Atwood,
Flint.

Mr. President, Ladies and Gentlemen, Members of the State Medical Society:

I am pleased to be here this morning to deliver a brief address of welcome to the visiting members. Our local members know that wherever I am they are always welcome. I number among my friends the members of the medical profession. My business has brought me into contact with them professionally. I had the misfortune to be a pharmacist before I got into politics, and since then I have had to be one in order to live. (Laughter.) In that line we have to succeed if we escape collectors.

The city of Flint is glad to have you with us today. Those of you who were here a few years ago will see a great change. We now have over 400 miles of streets, 160 miles of water sewers, 105 miles of gas mains, 165 miles of water mains and one of the best water plants in the state of Michigan, if not in the United States. We have this municipally owned. It has not cost us a dime and is now worth \$2,000,000, and I think some of you will bear me out that when you awoke this morning and tried the good water it was well worth it. (Laughter.)

I welcome to the city of Flint the members of the society. We want them to enjoy themselves. We want them to have a good time. We want them to see our automobile factories. We are proud of

them. We turn out the best cars in the United States. We have them for any price and at any price they are worth it. If you visit the factories you will know how we can produce the best cars. We have the men who know how to make them, and how to get the best materials and how to get the best production.

I wish to impress upon you the fact that the medical profession will show you a good time. The citizens of Flint are fond of the medical profession and will join with them to give you a good time. The only thing you have to do if you want anything in the city of Flint and don't see it, is to ask for it. Of course, with any convention, we always have an unwelcome guest, an uninvited guest, and I exclude him from my welcome—I refer to Mr. Volstead. (Laughter and applause.)

I wish you to feel that the profession and the citizens of Flint are going to co-operate in showing you a good time. When you come down past the city hall, if you are able, step in. I shall be glad to see you. (Applause.)

Address of Welcome: F. B. Miner, M. D.,
President Genesee County Medical Society.

Mr. President, Ladies and Gentlemen, Brother Physicians:

The members of the Genesee County Medical Society wish me to bid you a most hearty welcome. Yes, I feel that I may safely go one step farther and say that the entire populace of Genesee county extends a most cordial welcome. We only hope that you are as glad to be here as we are to have you.

You have heard much about the wonderful growth of our little Flint—may I give you a few facts? You visited us in 1913, when New Flint was in its infancy, with a population of under 45,000; today it is in the period of adolescence. I say adolescence, for our goal at that time was 100,000. Now, having attained it in this brief span of nine years, our city planning is set at a much higher figure. Such is the fruit borne from an ideal tree, planted in a soil of opportunity, and nurtured by a citizenry whose spirit is to build bigger, better and stronger. I am not here this morning to sell you Flint, nor a Flint-made automobile, nor a Flint idea, for judging from the countenances of my audience, I would say, even though you are all from Michigan, that you had adopted the Missouri attitude—that of being willing to be shown. I simply wish to assure you that every member of the Genesee County Medical Society is only too glad to show you Flint. Each member has his car marked with a convention sign. Hail

it anywhere and at any time and see Flint. We are anxious to show you our industries, one of which is working to capacity, producing 1,200 motors per day; our civic park of 1,000 one-family houses, equipped with every modern convenience, all built and completed in one year, a similar unit cannot be shown in Michigan; our embryonic parks with three municipal swimming pools; our modern filtration plant which makes the river water perfectly fit and safe to drink; our public health center, of which we are justly proud; our Flint Country club, with an 18-hole golf course, also our Flint Automobile club, which extends to you the privilege of its club house and the touring privileges from its secretaries in the lobby of this hotel. Besides, we are anxious to show you our 44 grammar schools, four of which are nearing completion; our new \$1,500,000 high school, which is now in the process of construction. By the way, this high school is being built in that magnificent plat of 47 acres known as Oak Grove. It is where we were so royally and handsomely entertained in 1913 at a lawn fete by that genial host and friend to every physician, Dr. C. B. Burr. At this time we miss his counsel, his influence and his word of cheer. He is spending this year in California, having retired from active work.

Not long ago, a distinguished personage visited Flint, and after being shown about the city, made this remark: "God never intended Flint to be a city. There are no natural resources for your industries, and there are no natural beauty spots, save one—Oak Grove—for recreational grounds or amusement places; it is all built by man." This is all true. The degree of success in providing for these thousands of new people socially, economically and healthfully, I will leave to you to judge. But, the secret of our success is the splendid co-operative spirit of our citizens. Such a spirit stimulated by a high ideal of civic pride has put it over. For example, this hotel was built by the subscriptions of 300 citizens; the new railroad belt line right-of-way which will divert the freight trains from crossing the downtown district and afford several miles of new railroad frontage industrial sites, was purchased and given outright to the Pere Marquette railroad by 275 subscribers; and a beautiful site for a woman's and children's hospital has just been purchased by the subscription of over 8,000 people. Again, week before last, the old campaign guard went out and in three days secured over 2,000 members for the Senior Chamber of Commerce. Besides this organization we have the only Junior Chamber of Commerce in Michigan, comprized by a membership of 450 young men, ranging from 18 to 28 years of age. This progressive spirit of co-operation has made Genesee County Medical Society one of the strongest in the state. With a membership of 125, which is 94 per cent of all the physicians in the county, our bi-weekly noonday luncheon meetings have an average attendance of over 70.

At this time we are glad to note the progress made this year by our good state president and his co-workers in having initiated a definite plan of education, which brings the state society more definitely into the modern era of progressive medicine—that of health conservation—the building of sounder minds and sounder bodies by preventing disease. Sir, President Kay, we see also the reflection of your great character in all your loyal work in the state society—the doctor of the old school—typical indeed to that wonderful character of the good Dr. MacClure, as depicted in the "Bonnie Brier Bush;" the great humanitarian, shedding sunshine, love and happiness everywhere. Genesee sees this, manifested in all branches of the state society by a spirit of better feeling and that of a stronger faith

in man. All this is splendid constructive progress and deserving of much commendation.

Friends, honestly, we are glad to have you here. We wish you to feel that you have a real personal welcome. We are glad to welcome these guests from outside of the state, we wish you to be Wolverines with the rest of us. We are glad to have this convention here. We are glad to have this large attendance; we are glad to give the program wide circulation in the press; we are glad to have the citizens of our community receive this stimulus in progressive medicine, which is bound to come from a convention of this kind, and we hope in return to give some comfort, some pleasure and some little benefit, so that when you will return home, you will say: "I am glad that I attended the convention in Flint."

Response to Addresses of Welcome: W. J. Kay, M. D., President.

Mr. Mayor, Dr. Miner:

We fully appreciate the welcome extended to us. We met in Flint some years ago, and, of course, find things considerably different from what they were then. The fact that you have good water perhaps compensates for some of the things we have missed and we have managed to have a good time so far. If I had the salesmanship of either of you gentlemen I would not be practicing medicine. (Laughter.) They show forth the spirit of Flint. I live 20 miles from Flint and have associated pretty closely with them, and, gentlemen, if you take nothing away from this convention but just a little of the spirit that emanates from the Genesee County Medical Society, you will have been well paid. I drive over here to have dinner with them every once in a while and I have profited every time I came. I have no doubt that, like us, they have their differences, but a society that will average 70 in attendance at their bi-monthly medical luncheons, with an address on some medical subject each time, must have back of it the sort of spirit that we all should have, and I am sure we will profit much by our visit with them. (Applause.)

Vice President J. W. Hauxhurst now took the chair while Dr. Kay delivered the president's address.

(See July Journal, 1922.)

Nominations for President

DR. A. W. HORNBOKEN, Marquette: Mr. President, Members of the Society: Had not some months ago the Grim Reaper removed the dearest friend I had on earth I would have stood where I now stand to present his name for the presidency of this organization. But we must carry on. This society must grow stronger and stronger as the years go by, and the man whom I am about to present for your consideration has rendered services so great that we could not dispense with them for years. He earned the honor of being president years ago by his work in this society. He was for 14 years a medical officer in the National guard of the state of Michigan. In 1917, he was a major in the work of Uncle Sam. He was assigned at a base hospital and was chief for one year. Upon the reorganization of this society in 1902 he was made chairman of the council and he held that position for 20 years, but now that we have grown strong enough to dispense with his services in the council I take great pleasure, and some little honor, in presenting to you the name of Dr. W. T. Dodge of Big Rapids for president.

DR. J. B. KENNEDY, Detroit: Mr. President, Fellow Members: To be the president of the Michigan State Medical Society is a great honor, and it should go to a man who has been a constant, in-

telligent and active worker in the organization. Such a man Dr. Dodge has been and he richly deserves this honor. I take pleasure in seconding his nomination and I move, Mr. President, that the nominations be closed and that the secretary cast the unanimous ballot for Dr. Dodge as president for the coming year.

Supported by several and carried.

The secretary reported the ballot cast and the president declared Dr. Dodge duly elected as president for the ensuing year.

DR. ANGUS McLEAN, Detroit: Mr. President: I move than a standing vote of thanks be extended to President Burton of the Michigan State University for his splendid address this morning.

This motion was supported by several and unanimously carried.

As this concluded the program of the morning session, on motion duly seconded and carried the society adjourned.

SECOND GENERAL MEETING

The second general session of the 57th Annual Meeting of the Michigan State Medical Society was called to order in the ballroom of the Hotel Durant, Flint, at 8:10 P. M., Thursday, June 8, 1922, by the President, Dr. W. J. Kay.

THE PRESIDENT: The first speaker for the evening I have a great deal of pleasure in introducing to you, because I sat on the benches with him when we were students. In those days he was a young man who had long black curly hair that he was extremely proud of. He was a mighty good boxer and could knock the rest of us around without much trouble. If he has made as much success in his professional career as he did in his school days, he is some hummer. I take much pleasure in introducing the Assistant Surgeon-General of the Public Health Service, Dr. McLaughlin. (Applause).

DR. McLAUGHLIN: Mr. President, Ladies and Gentlemen, Members of the Michigan State Medical Society: I have some doubt as to whether I can qualify as a medical man of the state of Michigan. I have been away so long, and yet when I tell you that I graduated from the Detroit College of Medicine in '96 with such gentlemen as your president and others that I could mention—I won't tell all I know about them, for they perhaps have to make a living in your community and I will keep charitably silent on a lot of things I could say. (Laughter.) I also practiced medicine for three years in the extreme southwestern part of the state and then, in an unguarded moment, I went into the public health service and have been there for 22 years, so I may qualify for a talk, I don't know. We can't do things in our own family. When my wife gets an ache or a pain she comes to me and wants medicine and does not get it and then she says, "Oh! well. I'm going to see a real doctor."

That makes me think of the two colored preachers who met in the southern community, one a Baptist and one a Methodist. One said to the other, "What religion does you preach?" He said, "I'm baptized a Methodist." "Baptized? Baptized? You weren't baptized, you was dry cleaned!" (Laughter.) I think the practitioner of medicine is apt to look upon us in the same way the real Baptist looks upon a Methodist.

Three great big entities enter into this matter of public health, the real health officer, the constituted

authority, the practicing physician, and I think perhaps I should put in first, that group of volunteer agents, doing volunteer health work. To keep these three agencies in line is the work which the public health officer has to do. We cannot keep these in line without the full co-operation of the three branches. Sometimes we seem to lean too far toward the official and the other get fussy and say they are not playing with us. Sometimes the health officer is inclined to play a lone hand and not take the local profession into his confidence and ask for help. On the other hand, the local physician is sometimes disinterested and not inclined to help. We have in the public health organization of which I am president at present an organization for bringing together these three groups, and it is the only forum in which all three can come together.

You have in Michigan here this great fine Michigan State Public Health association, which has for its purpose the identical aim of the Public Health association. I note with pleasure that this association aims to be really a part of the Michigan State society, for this is the only way in which success can be attained. I spoke of the attitude of indifference and suspicion which the local men may have toward public health authorities. It makes me think of a story of the old Scottish minister who noted a stranger in his audience. The stranger was an old lady who had hanging from her neck a suspicious looking instrument, which was an ear trumpet. The sexton was entirely suspicious and followed her to her seat and stayed near by. When the minister got up in the pulpit he noticed activity on the part of the woman, who was adjusting the ear trumpet, and he went over and touched her on the shoulder and said, "See here, Madam, one toot and you're oot!" (Laughter.) All I ask is that you be not suspicious of what appears to be something you do not understand. Go to the health officers and find out what they are doing. If they are in your local neighborhood it is your moral obligation, if not your legal obligation, to do things with them. We should all be practitioners of preventive medicine. Let us throw the cards on the table face up and if there are any misunderstandings they can be cleared away. I have looked into a lot of these things and have never found one that could not be cleared away to the satisfaction of the doctors on one hand and the health officers on the other. Let us do away with suspicions and throw the cards on the table. Play the game for what it is worth as men, and if we have anything that tends toward misunderstanding let us get together and straighten things out.

I thank you. (Applause.)

THE PRESIDENT: We are very glad to hear Dr. McLaughlin speak along these lines. It is the thought that has been permeating the profession in Michigan for some time and they are good thoughts to take home.

We have with us another man who has been engaged in health work for a long time. He was at one time Health Officer of New York and has a message for you. He asked me not to take any time in introducing him, but one thing I think I ought to tell you—he had an ancestor who was hanged for talking too much. He assures me that that was quite a good ways back and that it has been worked out. (Laughter and applause).

I take much pleasure in introducing to you Dr. Haven Emerson of New York, who will

talk to you on "The Value of Periodic Medical Examinations." (Applause).

(Dr. Emerson's address will be published in a subsequent issue of The Journal).

THIRD GENERAL MEETING

The Third general session of the 57th Annual Meeting of the Michigan State Medical Society was called to order in the ballroom of the Hotel Durant, Flint, at 12:00 noon, June 9, 1922, by the President, Dr. W. J. Kay.

REPORT OF THE HOUSE OF DELEGATES

DR. F. C. WARNSHUIS presented the report of the House of Delegates.

NEW BUSINESS

DR. J. B. KENNEDY, Detroit: In reference to what has been stated as the most important question this morning, the enlargement of the Psychopathic hospital, would it not be wise to have it stated that it is intended as an institution for observation, study and treatment of so-called borderline cases, before they are stigmatized either as insane or as criminal? There is such a place at Ann Arbor but the capacity is limited to 62 patients, only 25 men, and I feel that it should be enlarged five or six times to take care of just such cases.

THE PRESIDENT: I think this has been covered in the action of the House of Delegates.

INTRODUCTION OF PRESIDENT-ELECT

The President appointed Drs. Hornbogen and Kennedy to escort Dr. Dodge to the Chair.

DR. J. B. KENNEDY: Mr. President, we have very great pleasure and we deem it a distinct honor to present your successor, who has been unanimously chosen by this Association as President for the ensuing year, receiving 552 votes. I present to you Dr. W. T. Dodge, a distinguished surgeon, a physician and a gentleman. (Applause).

DR. W. J. KAY: It gives me much pleasure to welcome Dr. Dodge to the office I am about to vacate. I have been in the Society for twenty-five years, the whole time of my practice, and when I first entered, Dr. Dodge at that time stood as one of our prominent men. As I have worked in the organization I, like all the rest, have felt that if there was any problem that required hard, clear thinking from a man who could keep his feet on the ground and his head cool all the time, Dr. Dodge was the man to appeal to. He has always had the welfare of the profession uppermost in his mind.

Dr. Dodge, it gives me much pleasure to welcome you to the office and I think our Society has done itself proud in electing you. (Applause).

DR. W. T. DODGE: Dr. Kay, Ladies and Gentlemen: To have served for twenty years as counsellor, and many of them as Chairman of the Council, without acquiring the reputation of a malefactor—and then to have received the honor of being elected to this office, is accepted as an evidence of your magnanimity,

your good-fellowship, and your tolerance toward a sometimes erring and often irritating personality. I thank you for the honor.

For the first time in twenty years, I am having the privilege of speaking to you from a point of view outside of the Council. The Council is the Board of Directors of the Society and has charge of the administration of the affairs of the Society. It has also been empowered to speak for you during the meetings of the House of Delegates. It is necessary that you have somebody thus authorized to speak for you if your organization continues successful. If your Council displeases you change its personnel, but do not abridge this authority, for if you do it must be conferred upon someone else.

When I was first chosen an officer in this Society I was very innocent concerning the methods of organization. I looked upon the twelve counties which at that time had never had a medical society in their midst, and looked upon it as a mountainous task which I probably would not have the strength to accomplish. I was fortunate in being a protegee of the father of the medical profession in this state, and he taught me the way to go. I wish to pay a respect to his memory today, for whatever I may have achieved is due to that great late old Roman, Dr. Leartus Connor of Detroit. (Prolonged applause).

As this concluded the business of the general session, on motion, duly seconded and carried, the Society adjourned *sine die*.

REGISTRATION

ALPENA—D. A. Cameron, A. Bonneville.

BAY—A. J. Zaremba, E. C. Warren, Paul R. Urmston, C. A. Stewart, M. R. Slattery, G. M. McDowell, Charles L. Hess, J. W. Hauxhurst, J. C. Grosjean, Morton Gallagher, Robert H. Criswell, A. M. Brown, Charles H. Baker, Fred S. Baird, Chas. W. Ash.

BERRIEN—J. F. Crofton.

BRANCH—Fred H. Harris.

CASS—E. W. Tonkin.

CLINTON—Guy H. Frace, Arthur O. Hart, W. B. McWilliams, W. A. Scott, W. M. Taylor, W. S. Bell, Jerome W. Ankley.

CALHOUN—W. O. Upson, R. C. Stone, A. D. Sharp, W. H. Riley, M. A. Mortensen, W. F. Martin, L. N. McNair, A. E. MacGregor, H. B. Knapp, A. F. Kingsley, John H. Kellogg, A. A. Hoyt, J. J. Holes, Wilfrid Haughey, C. S. Gorsline, W. L. Godfrey, James A. Elliott, J. E. Cooper, G. C. Hafford, Benton N. Colver, James T. Case, O. B. Grant.

EATON—G. M. Byington, Stanley A. Stealy.

GENESEE—G. R. Wright, A. G. Wright, W. H. Winchester, L. L. Willoughby, Herbert T. White, W. Whitaker, A. S. Wheelock, N. M. Ward, W. J. Wall, D. L. Treat, M. R. Sutton, J. D. Stuart, R. W. Streat, H. A. Stewart, W. W. Stevenson, R. A. Stephenson, D. C. Smith, B. R. Sleeman, R. S. Scott, E. A. Runyan, J. F. Rumer, F. A. Roberts, A. J. Reynolds, W. C. Reid, O. Reichard, F. E. Reeder, H. E. Randall, C. P. Ramoth, C. C. Probert, R. L. Phillips, W. H. Perry, A. T. Paull, A. A. Patterson, J. W. Orr, C. H. O'Neil, I. D. Odle, H. R. Niles, W. Moss, R. S. Morrish, Carl F. Holl, F. B. Miner, E. E. Miller, C. Merritt, W. H. Marshall, J. G. R. Manwaring, B. W. Malfroid, O. W. McKenna, J. C. McGregor, R. A. McGarry, R. B. Macduff, A. McArthur, J. L. Leach, J. J. Kurtz, M. Knapp, Harry W. Knapp, Don D. Knapp, Lafon Jones, D. S. Jickling, J. H. Houton, L. R. Himmelberger, L. D. Harrison, A. W. Harner, H. W. Graham, Dwight Goodrich, George R. Goering, P. Goodfellow, R. J. Frackelton, S. Foley, A. C. Edgerton, J. W. Evers, R. Dixon,

E. G. Dimond, George J. Curry, F. L. Covert, A. E. Copp, Joseph Cooperstein, Henry Cook, J. T. Connell, A. W. Harding, John W. Handy, R. S. Halligan, H. C. Hackman, J. Gould, M. William Clift, E. L. Collier, C. P. Clark, A. B. Clark, L. H. Childs, John H. Charters, Carl D. Chapell, F. Callow, B. Burnell, M. Burnell, Leon M. Bogart, A. C. Blakeley, W. G. Bird, John C. Benson, D. C. Bell, N. Bates, James Baird, G. H. Bahlman, E. I. Allen, H. A. Knapp.

GRATIOT-ISABELLA-CLARE—F. J. Fraham, E. T. Lamb, C. D. Pullen, C. F. DuBois, I. N. Brainerd, P. M. Baskerville.

HILLSDALE—B. F. Green, W. H. Sawyer, D. W. Fenton, H. E. Bell.

HOUGHTON—R. B. Harkness.

HURON—J. O. Lunn, W. B. Holdship.

IONIA—J. J. McCann, W. B. Huntley.

INGHAM—E. H. Foust, C. B. Gardner, S. K. Hill, H. Holcombe, Fred M. Huntley, R. A. MacGregor, W. E. McNamara, B. D. Niles, A. E. Owen, Milton Shaw, L. W. Toles, W. G. Wight, Bertha W. Ellis, C. W. Ellis, C. P. Doyle, H. S. Bartholomew.

JACKSON—W. L. Finton, H. L. Hurley, C. D. Munro, E. S. Peterson, A. J. Roberts, D. E. Robinson, G. A. Seybold, A. M. Shaeffer, E. C. Taylor, F. R. Town, H. W. Van Etten, G. E. Winter, W. H. Enders, C. R. Dengler, A. E. Bulson.

KALAMAZOO—N. L. Goodrich, J. W. Hawkey, J. B. Jackson, H. E. Olney, F. C. Penoyar, A. H. Rockwell, B. A. Shepard, G. F. Young, A. S. Youngs, C. E. Boys, Guy L. Bliss.

KENT—A. V. Wenger, D. Emmett Welsh, F. C. Warnshuis, Frank A. Votey, W. H. Veenboer, P. L. Thompson, R. R. Smith, Ferris Smith, J. R. Rogers, Frank A. Poole, V. M. Moore, A. M. Martin, J. H. McRae, F. J. Larned, Clyde F. Karshner, C. H. Johnston, R. J. Hutchinson, C. M. Freeman, W. J. DuBois, A. Dean, Fred P. Currier, B. R. Corbus, E. O. Cilley, A. M. Campbell, E. J. Byers, James S. Brotherhood, J. D. Brook, A. J. Baker.

LAPEER—D. J. O'Brien, N. D. McVicar, F. A. Tinker, W. J. Kay, G. W. Jones, H. A. Haynes, J. H. Burley, W. Blake.

LENAWEE—S. J. Rubley, I. L. Spalding.

LIVINGSTON—J. W. Toan.

MUSKEGON—F. B. Marshall.

MARQUETTE—A. W. Hornbogen, David Littlejohn, V. H. Vandever.

MANISTEE—H. Robinson, W. E. Coates.

MACOMB—J. E. Currett, V. H. Wolfson.

MONROE—Chas. T. Southworth.

MECOSTA—J. L. Burkart, W. T. Dodge, B. L. Franklin, Glenn Grieve, G. Lynch, O. J. East.

MIDLAND—E. J. Dougher.

MENOMINEE—Stephen C. Mason, R. A. Walker.

OAKLAND—H. B. Yoh, M. J. Uloth, P. Stewart, G. Simenton, H. A. Sibley, A. D. Riker, G. P. Raynale, E. Orton, C. A. Neafie, F. A. Mercer, G. W. MacKinnon, J. W. Losee, P. D. Hilty, C. L. Hathaway, Campbell Harvey, F. D. German, R. Y. Ferguson, A. B. Corbit, J. B. Chapman, L. G. Campbell, F. J. Burt.

ONTONAGON—A. M. Moll.

OTTAWA—R. H. Nichols, H. J. Poppen.

O. M. C. O. R. O.—A. C. MacKinnon, C. R. Keyport.

SANILAC—D. D. McNaughton, J. W. Scott, J. F. Waltz, J. C. Webster.

ST. CLAIR—T. F. Heavenrich, C. McCue, W. H. Morris, C. B. Stockwell, C. C. Clancy.

SAGINAW—T. M. Williamson, J. T. Sample, W. L. Slack, F. W. Ostrander, J. A. McLandress, A. R. McKinney, N. F. McClinton, M. Longstreet, A. E. Leitch, R. M. Kempton, J. W. Hutchison, Arthur Grigg, A. M. Francis, G. H. Ferguson, William DeKleine, F. F. Curtis, F. J. Cady, A. C. Button, W. H. Brock, D. E. Bagshaw.

SHIAWASSEE—W. E. Ward, G. P. Sackrider, F. S. Ruggler, James A. Rowley, W. T. Parker, C. McCormick, A. M. Hume, H. A. Hume, J. J. Haviland, E. J. Carney, A. L. Arnold, L. D. Hixson.

TUSCOLA—N. H. Jackson, O. A. Johnson, W. J. Sugnet, U. G. Spohn, A. L. Seeley, R. M. Olin, F. L. Morris, H. H. Merriman, J. G. Maurer, J. Mackenzie, H. A. Bishop.

TRI—G. D. Miller, O. L. Ricker.

WASHTENAW—J. T. Woods, U. J. Wile, A. D. Wickett, J. A. Wessinger, C. L. Washburn, F. R. Waldron, J. Sundwall, L. D. Stern, J. C. Solis, J. W. Sherrick, Reuben Peterson, M. M. Peet, J. P. Parsons, C. G. Parnall, J. Palma, K. Noble, L. H. Newburgh, G. F. Muehlig, N. F. Miller, Mark Marshall, P. L. Marsh, I. D. Loree, T. Klingman, B. H. Honeywell, L. A. Hoag, G. R. Herrmann, W. W. Harryman, R. M. Greenthal,

I. W. Greene, Conrad Georg, J. L. Garvey, C. G. Darling, R. S. Cron, D. M. Cowie, C. D. Camp, J. F. Breakey, Hugh Cabot, H. D. Bars, L. C. Abbott.

WAYNE—E. W. Young, H. Wellington Yates, H. B. Woods, N. L. Woodry, G. E. Woodford, G. H. Wood, L. B. Wood, E. R. Witwer, F. C. Witter, Stuart Wilson, W. J. Wilson, Harold Wilson, A. B. Wickham, G. E. White, L. F. Wendt, W. E. Welz, L. F. Webber, G. F. Ward, S. A. Walkowiak, F. B. Walker, R. V. Walker, G. M. Waldeck, C. Emerson Vreeland, H. F. Vaughan, G. Van Rhee, H. Ulbrich, H. N. Torrey, F. B. Tibbals, H. B. Schmidt, S. H. Sauter, H. C. Saltzstein, E. O. Sage, F. Suggs, C. L. Straith, W. C. Stevens, R. H. Stevens, H. B. Steinbach, F. R. Starkey, W. LaRue Smith, F. J. Sladen, G. K. Sipe, C. E. Simpson, H. Lee Simpson, M. E. Silver, R. J. Shute, B. R. Shurly, B. B. Sherman, H. K. Shawan, George Sewell, F. L. Ryerson, J. R. Rupp, R. S. Rowland, Jacob Rosenthal, Robert Rosen, F. W. Robbins, H. M. Rich, W. K. Rexford, H. H. Ptolemy, J. H. Polozker, I. L. Polozker, H. W. Plaggemeyer, G. C. Penberthy, H. W. Pierce, D. L. Parker, W. R. Parker, G. H. Palmerlee, R. K. Opperman, C. H. Oakman, F. H. Newberry, T. F. Mullen, W. H. Morley, B. Monkman, J. C. Montgomery, E. P. Mills, R. E. Mercer, F. M. Meader, W. D. Mayer, Earl W. May, W. W. Manton, I. McQuarrie, J. G. MacPherson, Angus McLean, Geo. E. McKean, T. A. McGraw, G. H. McFall, W. H. McCracken, D. McClurg, R. D. McClure, M. B. McCausland, G. S. McAlpine, H. A. Luce, R. E. Loucks, G. M. Livingston, David J. Levy, C. E. Lemmon, E. R. Larned, C. F. Kuhn, J. Everett King, J. A. Kimzey, Guy L. Kiefer, W. P. Kennedy, W. J. Kennedy, J. B. Kennedy, W. E. Keane, M. B. Kay, George Kamperman, W. W. Kahn, C. Hollister Judd, M. M. Jones, R. K. Johnson, C. A. Jennings, A. F. Jennings, T. V. Hunter, A. W. Hudson, B. R. Hoobler, W. H. Honor, C. H. Holaday, C. W. Hitchcock, Robert Hislop, L. I. Hirschman, L. W. Haynes, C. M. Haviland, J. H. Hathaway, Voss Harrell, J. G. Israel, Heman Grant, J. E. Gleason, Nathaniel Ginsburg, H. B. Garner, C. B. Gaines, G. E. Frothingham, Bernhard Friedlaender, T. J. Foster, R. F. Foster, S. J. Eder, C. H. Eisman, B. G. Estabrook, W. A. Evans, Leo C. Donnelly, A. S. DeWitt, W. A. DeFoe, C. R. Davis, T. B. Cooley, Ray Connor, Guy L. Connor, Beverly D. Harison, L. I. Condit, W. C. C. Cole, Don A. Cohoe, W. R. Clinton, James Cleland, Jr., R. L. Clark, Harry L. Clark, John L. Chester, J. Hamilton Charters, W. J. Cassidy, Henry R. Carstens, E. K. Carmicheal, Duncan Campbell, Don M. Campbell, H. J. Butler, F. J. Buesser, G. Van Amber Brown, C. D. Brooks, O. A. Brines, W. N. Braley, L. F. Boyle, F. N. Blanchard, A. W. Blain, A. P. Biddle, E. J. Bernstein, H. S. Berman, Neil Bentley, John N. Bell, H. L. Begle, Myra E. Babcock, R. C. Andries, J. H. Andries, Emil Amberg, Norman M. Allen.

PROCEEDINGS OF THE HOUSE OF DELEGATES

FIRST SESSION

The first session of the House of Delegates of the Fifty-Seventh Annual Meeting of the Michigan State Medical Society was called to order at the Hotel Durant, Flint, June 7th, 1922, at 2:15 P. M., by the Speaker, Dr. J. D. Brook, Grandville.

ROLL CALL

THE SECRETARY reported that he held thirty-four signed names of registered delegates, and moved that this be accepted as the first roll call of the House of Delegates. Motion seconded and carried.

THE SPEAKER announced that a quorum was present and that the House was duly constituted for the transaction of business.

REPORT OF COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

DR. W. T. DODGE, Chairman, presented the report of this Committee, as follows:

Your Committee appointed to present a revision of our Constitution and By-laws for the consideration of this House of Delegates begs leave to report as follows:

The Committee secured copies of the Constitution and By-laws of a number of our State Medical Societies. It has devoted much time and study to the features of these articles and took the pains

to ascertain the value and success of their application.

Possessed with that information your Committee drafted a proposed new Constitution and By-laws for our society and sought to incorporate therein the desirable features that were proving successful in the medical organizations of our sister states and also to retain that which our own Constitution and By-laws had in the years gone by, proven valuable in our Society's activities. In addition we sought to clarify some of our sections and to be more specific by a detailed statement of implied provision.

The Committee's completed redraft was published in the May Journal for the information and study of our Delegates in order that this house might be more informed in regard to the proposed changes.

Since the publication of that drafted revision, the American Medical Association has met in Annual Session in St. Louis. By action of our National House of Delegates a Committee has been appointed to draft a model Constitution and By-laws for State Medical Societies. This Committee is to submit its report next year.

It is the opinion of your Committee that our parent organization will recommend that all State Societies do adopt that uniform model with such changes as local necessities require. To comply with such a request would necessitate our reconsidering the entire question at our next annual meeting.

Your Committee therefore recommends that consideration of changes in our Constitution and By-laws be deferred until such time as the model above referred to is submitted to State Societies by the American Medical Association.

Respectfully submitted,

W. T. DODGE.

C. E. BOYS.

F. C. WARNSHUIS.

Dr. Dodge moved its adoption. Seconded by several.

DR. J. B. KENNEDY, Detroit, moved to amend that the report be received and a new committee appointed by the House to draft a new constitution and bring a report at the next annual session of the House of Delegates. Seconded by Dr. R. E. Mercer. Discussed by Drs. R. A. Walker, W. T. Dodge, A. E. Bonneville and G. E. Hafford.

This amendment was put to a rising vote and carried by a vote of twenty-three in favor to fifteen opposed.

The motion of Dr. Dodge, as amended, was put to a vote and carried.

As this completed the business before the first session, the House of Delegates adjourned at 2:30 to reconvene at 7:30 P. M.

SECOND SESSION

The second session of the House of Delegates of the Fifty-Seventh Annual Meeting of the Michigan State Medical Society was called to order at the Hotel Durant, Flint, June 7th, 1922, at 7:45 P. M., by the Speaker, Dr. J. D. Brook, Grandville.

ROLL CALL

THE SECRETARY reported that he held thirty-seven responses to the roll call and moved that these be accepted as the response to the roll call for the second session of the House of Delegates. Motion seconded and carried.

THE SPEAKER announced that a quorum was present and that the House was duly constituted for the transaction of business.

SPEAKER'S ADDRESS

Vice-Speaker, Carl F. Moll, Flint, took the Chair while Dr. Brook delivered the Speaker's address.

The House of Delegates is the representative body of a large number of physicians who constitute the membership of the State Society. It is here that you should voice the sentiment of those whom you represent. On all subjects concerning the general welfare of the profession, definite instruction should be given you by your local society. You are the legislative body of the State Society and have power to instruct and delegate to the Council and officers such recommendations as you may desire. Many other duties devolve upon the House membership as set forth in our constitution to which I earnestly direct your perusal.

Being the legislative body, I desire briefly to direct your attention to three or four subjects which deserve consideration.

A year ago I presented to this house a resolution requesting the Secretary to change the time of our meetings to a more "dignified hour." It seems that under the present schedule this is impossible. I therefore suggest that the House convene the day previous to the first general meeting and that its sessions be held at 9:30 or 10:00 A. M., 2:00 P. M. and 7:30 P. M. with the provision that a fourth session may be held on the morning of the second or third day at the discretion of the delegates. I present the above program for your consideration and discussion with the suggestion that at least it be given a trial.

At the recent meeting of the American Medical Association at St. Louis, steps were taken to wage an active, intensive, public educational campaign. Michigan passed the first pure food law in the United States in 1895. She has the oldest and best Medical Practice Act in the country, and at the beginning of 1922 again blazed the way when it started its medical-educational campaign six months in advance of the national organization.

At the January meeting of the Council, a committee was appointed to act with a joint committee from the University of Michigan for the purpose of waging an active medical and public health educational campaign. This to be directed from the University Extension Bureau. I am heartily in accord with this movement and believe it is already bearing fruit. However, constructive criticism is helpful. Mature minds are sometimes set—sometimes gullible, but the young mind, that of the child, is impressive. The general school laws of the state make it mandatory that there shall be taught in the public schools of the State, the methods by which communicable disease is spread and the best means of combating the same. That this law is violated constantly and generally throughout the state, with the possible exception of the schools in some of the larger cities, is evidenced by the fact that a large percentage of the teachers who were educated in our schools are absolutely ignorant on the subject. If the principles of scientific medicine—those of infection and immunity, of communicability, prevention and cure, are to be continued for the preservation of life and health, then we are compelled to educate the youth.

Doctor Andrew P. Bible, last January, in Detroit, realizing the importance of this subject offered the public schools of that city to our committee for its use. A wonderful offer which should be accepted if possible. Dr. Chas. H. Mayo, in a recent address at Grand Rapids, stated that Bismarck said, "Give me the children between the ages of seven and fourteen, and I'll guarantee they will never forget the Fatherland."

I do not wish to advocate the removal of the responsibility from those whose duty it is to instruct the youth in the principles of disease pre-

vention, but to the contrary, I wish to emphasize this duty and to suggest to our committee that possibly some means of a more rigid enforcement of the law may be obtained through the State department of Public Instruction or by co-operating with them. However, the achievements of scientific medicine, particularly those of the past forty years, are not required as a course in our schools and we therefore must see to it that this information is imparted to the youth by some other means.

I believe there is no question in your minds, or in those of the committee, that this phase of the campaign should receive attention. How it is to be accomplished I am not prepared to say, but I would suggest that this house recommend to the committee that it give special thought and effort to devise ways and means of disseminating the desired information to the youth of Michigan. Being not unmindful of the ability, willingness and enthusiasm of our educational committee and realizing fully that their activities are still in embryo and their program tentative only, I have penned the above remarks only as suggestions and in the utmost spirit of friendliness and co-operation.

But we have another duty before us. While performing the manly and noble work of education, we must make provision for the execution of our teachings so that all the people may benefit thereby. I mean specifically this. The rich and the poor are the best treated medically and surgically. The rich, because they are able to buy all that scientific medicine can give; and a large percentage of the poor receive through the large clinics and charitable organizations practically the same medical, surgical and hospital treatment as the rich. But the large middle class, many of whom are too proud to ask for aid, although in need of treatment, are unable to pay some of the so-called "regular fees." These people need attention. To charge an individual of this class seventy-five dollars for a tonsilectomy, plus anesthetic and hospital charges is out of reach. If, however, such a surgeon, because of volume of business, cannot afford to charge less, he should not object to others doing it for less. In thus speaking, I am not unmindful of the general trend toward so-called "State Medicine." Dr. Alden Williams in a recent Presidential address before the American Radiological Association, stated that, "Radiology," like other branches of medicine, has a definite social aim. It is one of the public utilities and if not administered reasonably, may be taken over by the state. If this is applicable to radiology, it certainly is to surgery, and it behooves us to give it serious thought and attention, lest surgery, too, be taken over by the State. On the other hand, I maintain that the surgeon and physician when exercising his scientific skill, is entitled to reasonable compensation for services rendered, by which I mean, such fees as are adequate to properly maintain his overhead, support his family, educate his children, and lay by a competence for the eventide of life.

In view of the above, I would recommend that a committee of three be appointed by the President to review and investigate the needs of the public at the hands of the profession to formulate such plans and recommendations as may seem advisable and to report to this house at its next annual session.

A great organization such as ours cannot efficiently function without adequate financial backing. Our state Society dues for general purposes at present are a mere one dollar. Our funds are carefully and economically handled by the Council, but recommendation as to their expenditure may be made by this house. We think nothing about

spending five or ten dollars for that which brings us no return or about paying an extra cent or two in the increased price of gasoline, but we hear rumblings of discontent when mention is made of increasing our State Society dues. Other organizations are taxed fifty to one hundred times more than we are for similar purposes. We are far below the percentage of increase of other commodities, and if we are to go forward and progress, we can no longer sit back and expect much to be accomplished by those to whom we have delegated authority, unless we can supply them with the necessary financial assistance.

I therefore recommend that the by-laws be amended to empower the Council to increase or diminish the dues, within certain minimum and maximum figures, the latter to be fixed by the House.

I desire at this time to direct your attention to some of the more important subjects passed upon at the recent meeting of the American Medical Association at St. Louis, with the suggestion that if they meet with your approval you adopt the same.

1. Health Insurance never can, and never will become an American institution. It will, however, attempt to show itself from time to time in some form or other, and our legislative committee should be always on the alert to thwart any attempt to foist it upon the public. The following definition was adopted at St. Louis:

"The American Medical Association hereby declares its opposition to all forms of 'State Medicine,' because of the ultimate harm that would come thereby to the public weal through such form of medical practice. State Medicine is hereby defined for the purpose of this resolution, to be any form of medical treatment, provided, conducted, controlled, or subsidized by the federal or any State government, or municipality, except such service as is provided by the Army, Navy or Public Health Service, and that which is necessary for the control of Communicable diseases, the treatment of mental disease, the treatment of the indigent sick, and such other services as may be approved by, and administered under the direction of, or by a local county medical society and are not disapproved by the State Medical Society of which it is a component part."

2. That we extend our assistance and co-operation in the establishment of the proposed legislative bureau to the end that undesirable and dangerous legislation be not enacted in state or national bodies.

3. That we approve of the resolution pertaining to the medicinal use of whisky dispensed by the government in sealed packages, at a fixed price, and thus relieve the physician from the approbrium now resting upon the medical profession, and that your officers be requested to present the resolution as adopted by the House of Delegates of the American Medical Association, to our representatives and senators, as an expression of the sentiment of the physicians of Michigan.

4. That we endorse the action relative to stating the name of illness on narcotic prescriptions so that it will not be necessary to violate the law relative to disclosing the nature of illness.

5. That we endorse the action relative to the establishment of a Lay Journal and that we request the Council and the Secretary to make proper arrangements for the distribution of the same through the County Societies.

6. That we approve of the resolution offering free physical examination of the indigent.

Being somewhat timid because of its personal nature, I hesitate somewhat to mention the following subject, yet because of its importance and the principle involved, I believe it my duty to do so. It required three to five years for new delegates to the American Medical Association to acquire recognition, influence and reputation in the Na-

tional body. Therefore I suggest that to maintain our present enviable position, we follow the example of other states, by re-electing our delegates.

Since our last meeting at Bay City, there have flowed from the tongues and pens of our members from the shores of Lake Superior to the "Home of the Flivver," volumes of oratory and accusations resulting in misunderstandings and grievances. How it all came about, I do not know. I have always maintained that I was grieved at the situation, but I am pleased to be able to say that I understand that, at least in part, the differences have been adjusted. As I write I am reminded of a well known church confession, which in part is as follows: "We have done those things which we should not have done, and left undone those things which we should have done." To which I would add: and we have said those things which we should not have said. This would be a sad world indeed, if we all thought alike. Differences of opinion are the hills and valleys, the birds and flowers, the green fields and mountains of an otherwise monotonous mental existence. Uncle Joe Cannon recently said that those with whom he had his hottest arguments and discussions were frequently his best friends. I believe we are friends and brethren and that we wish to commune as such and that our differences have arisen from misunderstandings, and I therefore suggest that those who have partaken in the discussions assume a willingness to concede mistakes, accept apologies and extend the hand of good-fellowship, to the end that peace and harmony may be characterized as one of the salient features of the best State Society in the Union.

The affairs of the Association are conducted by its officers who are elected by either you or the Council. Frequently we hear rumors that the Society is being controlled by a few men in their own interests and that a house-cleaning is necessary. This statement is, however, only partially true. No organization, large or small, can be conducted in any other way. That selfishness is their motive is not true unless the expenditure of time, money and loss of business may be so construed. Very few in the profession or even members of this house know of the hours of thought and action necessary by our officers between the annual meetings. Numerous questions arise that need decision, which entail much thought and correspondence.

I do not believe in long obituaries, since flowers placed upon the bier are probably not enjoyed by the departed, and are soon forgotten by the few mourners who remain. I therefore desire to express my appreciation and esteem to the officers and Council of our Society, knowing that their greatest desire is to be of service to the entire profession.

It would be unkind, indeed, and ungrateful, if I did not specifically mention our Secretary, Dr. Warnshuis. For the past ten years he has been our Secretary-Editor. He has now entered upon a new field of labor. We rejoice with you Mr. Secretary and congratulate you upon having been elected to the office of Speaker of the National House. Realizing fully the personal honor, we feel nevertheless, that your election has honored the entire Society, and know that you will conduct the affairs of the office with credit to yourself and your constituents. We trust, however, that your new duties and responsibilities will in no way interfere with the splendid work you are doing for us, and that you may continue for many years as our Secretary.

Greatly appreciative of the privilege and pleasure of being honored to preside as your first speaker,

and realizing my responsibility, I am none the less cognizant of my duty toward you, and shall endeavor, with your support, to conduct the business of this house as expeditiously and orderly as possible.

This address was automatically referred to the Business Committee.

APPOINTMENT OF COMMITTEES

The Speaker appointed the following gentlemen to serve as a Business Committee:

Dr. W. J. Wilson, Wayne, Chairman; Dr. Udo J. Wile, Washtenaw; Dr. C. F. Moll, Genesee; Dr. G. L. Bliss, Kalamazoo; Dr. V. H. Vandeventer, Marquette-Alger.

NOMINATING COMMITTEE

The following gentlemen were elected as a Nominating Committee:

Dr. I. Spaulding, Lenawee, Chairman; Dr. H. A. Ruse, Wayne; Dr. R. A. Walker, Menominee; Dr. C. S. Gorsline, Calhoun; Dr. G. D. Miller, Tri County.

ANNUAL REPORT OF THE COUNCIL

DR. W. J. DU BOIS, Chairman, submitted the Annual Report of the Council.

The Council submits this as its annual report to the House of Delegates:

First: Attached hereto is the certified accountant's official audit of the Society's financial condition as of January 1, 1922.

Second: The annual reports of our Secretary-Editor and Chairman of the Medico-Legal Committee were published in the February Journal and require no further comment at this time.

Third: On June 1, 1922, our paid membership roster consisted of 2,628 members in good standing. There are 310 members who have not paid their 1922 dues. Our financial net worth on June 1, 1922 is \$8,385.94. Of this amount \$5,500 are invested in approved bonds.

Eighteen county societies have contributed \$855.00 to the special fund for Public Health Education and for legislative purposes. No contributions have been received from the remaining county societies though your Secretary has written all county societies soliciting their subscriptions.

Fourth: Some time in December, 1921, President W. J. Kay and Ex-President Angus McLean, together with the chairman of the Committee on Legislation and Public Policy, Dr. J. B. Kennedy, met with President Burton of the University of Michigan and discussed closer relations between the two organizations and at this meeting education of the public was discussed and the means of bringing this about was referred to the Council at its January session.

When Dr. Angell said many years ago that the time was near at hand when the medical profession must co-operate with the University in educating the public in matters relative to health or we might soon have laws enacted by a poorly informed legislature, which would admit to practice any ism which could muster enough of its followers to ask for the bill, he may have had in mind the very thing that is now accomplished by this agreement between our Society and the State University.

Many of us, no doubt, have given thought to the subject, but the time did not seem ripe until just recently. We met with the Council and we found that we were on a common ground and that our work must necessarily overlap and that we could work not only for the good of both, but at the same time do for the public what was most needed, i. e., tell them the things they needed to, and wanted to know about their health and its preservation. At this same meeting we also learned that all this so-called talk about our University faculty

being in favor of, State Medicine was untrue. There has no doubt, been a misunderstanding, most likely from the form of sentences that were used. After one heard both President Burton and Professor Cabot tell us their views of this matter from every viewpoint, we found that we were thinking along the same lines and working for the common end. At this meeting we agreed with them as did they with us that the aim of the State Medical Society and the University was to be of value to the public and that our apparent differences were unreal and that when we knew each other better our imaginary difference would cease. And this, gentlemen, has proved to be true. At this meeting a committee was appointed by the Council consisting of W. J. Kay, F. C. Warnshuis, A. P. Biddle, Angus McLean, W. T. Dodge and W. J. DuBois to represent the State Medical Society and President Burton with Professors Cabot, Huber, Sundwall and Henderson for the University. This committee has held five meetings and admitted to its deliberations the Health Commissioner of the State, Dr. Olin and Dean of the Detroit College of Medicine and President of the State Dental Society. The outline of their work is being imparted through our Journal. Its future activities will be imparted to our members from month to month.

The work done by this committee is important and can be easily undone by changing its personnel. We would ask that you by resolution, provide a committee that the work may be kept under way as started. The University has agreed that its committee will remain as it now stands.

Five: The county societies in many instances are now functioning in a very satisfactory way, but there are some places where the work is not active and we would ask that the House of Delegates discuss this matter with the hope that something new may be suggested.

Six: Many members of this council as well as many of the members of the State Society as a whole know of the wonderful laboratory work that is being carried on under the State Health Commissioner, Dr. Olin. We would suggest that some recognition of this work be given and that especial emphasis be given on the necessity of the doctors of the state becoming better acquainted with the very efficient work carried on in this laboratory. The State of Michigan has spent a great deal of money to make this one of the best equipped laboratories in the country, and we should use it and thus encourage this advance in our forces for public good.

Seven: The Council has no further recommendations to present. It is of the opinion that the future of our profession in this state is largely determinable by the degree of co-operative support our county societies subscribe to the policies announced at the recent meeting of the American Medical Association at St. Louis. We urge that you authorize their institution in Michigan.

This report was automatically referred to the Business Committee.

FIELD SECRETARY OF AMERICAN MEDICAL ASSOCIATION

THE SECRETARY announced that Dr. Olin West, Field Secretary of the American Medical Association, was present and requested the privilege of the floor for Dr. West. This privilege was granted and the Speaker introduced Dr. West to the House.

DR. OLIN WEST: Mr. Speaker, Gentlemen of the House and Members of the Michigan State Medical Society:

I desire to express my very sincere gratitude for this privilege, both personally and as a representa-

tive of the American Medical Association of which the Michigan State Association is such an important unit. As I go about, and have gone about for many years in the work of the organization and other fields, I have heard of the Michigan State Medical Society as being one of the best and most representative State Societies in America, and from what I have seen on this first day of the meeting, I am quite ready to subscribe to that viewpoint.

I have the honor to fill the position newly created by the Board of Trustees of the American Medical Association, that the Field Secretary. This position has been created with the purpose in view of bringing into closer contact with the national medical organization, the various State, District and County Medical Societies throughout the country. My term of service has not yet been long enough to permit me to form any opinion. As a matter of fact, I am in the position of the fellow who was being examined for jury service, and in reply to the stereotyped question stated that he had been married for five years. The usual question was propounded to him—"Have you formed or expressed an opinion?" He said, "Not for five years." (Laughter and Applause). I am somewhat in his position, not for the same reason, or for the same kind of reason. I feel quite sure that in the light of the experience of most married men, he never will form many opinions, and if he does, he will not dare express them, but I hope that after a reasonable time I shall be able to form opinions and have an opportunity to express them in a way that will result to the benefit of medical organization throughout the United States.

The American Medical Association is making an earnest effort to discover in just what way it can function more for the benefit of its individual members, the constituent associations and component societies. The effort of the Association is being enlarged all the time. At the recent meeting in St. Louis, to some extent through suggestions presented by your very efficient Secretary, who presided as Speaker of the House of Delegates in St. Louis, several new departures were made, among them the establishment of a Legal and Legislative Bureau, separating the work that would naturally come under that head from work on health and public instruction, where it has formerly been. It is hoped that the directing officer of this Bureau will soon be selected and at work, and through that Bureau it is hoped that the American Medical Association will be able to collect information about legislation and about the legal relations of the medical profession in all the aspects of that subject, and compile it so as to be able to present it to individual societies, that it may be used to the best advantage.

Another new departure will be the establishment of a Lay Medical Journal, by which it is hoped that the medical profession through the American Medical Association will be able to do a splendid work in health education.

I would like to say, Mr. Speaker, that I am personally, and the American Medical Association officers are with me in this, much interested in the plan that has been worked out in Michigan for the education of the public. This plan will be watched with great interest all over the country, because in a great many of our States the State Universities, through their Extension Bureaus, are doing educational work of all kinds, and other organizations through contact with the Extension Departments of State Universities have been carrying on educational efforts, some of which have been sadly misdirected. It seems to me it would be a splendid thing—and I am especially gratified to hear in the formal report of your Council, that

the initiative in this was taken by your State Society. It seems to me it would be an excellent thing if in every State a plan could be worked out by which the State Medical Society and the County Societies could direct the work for public education in medical matters.

The various councils and committees of the American Medical Association are doing a tremendous mass of work. There is some question as to whether or not the work that is being done is quite as useful as it might be made, and it is going to be a part of my job, as I understand it, to try and find out from the Associations and Societies just what they would like to have done for their benefit and for the benefit of the public they serve.

I am here, Mr. Speaker, not to make any suggestions whatever, but to watch, and listen, and to ask, and receive suggestions from the officers of this State Association as to how the resources and facilities of the American Medical Association can be made more useful, and their benefits extended to you, as members of that organization.

The Bulletin of the American Medical Association is a monthly publication which is designed to be the organizational publication of the Association. This Bulletin will be open particularly to the officers of medical societies throughout the country for the discussion of matters dealing with medical organization and the promotion of the interests of medical organization, and also for discussion of problems having an economic bearing upon subjects in which the profession is interested. I hope the officers of this Association will contribute to this Bulletin and that the members will feel free to write and discuss matters of interest to the medical profession.

Mr. Speaker, I am grateful, indeed, for the privilege of these few words with the House of Delegates, and I do not care to trespass further upon your time. I do again wish to express my appreciation for the courtesy thus extended, and to assure you that it is the purpose and desire of all the officers of the American Medical Association to extend the services of that society to the individual State Associations so far as it can be done. I thank you most sincerely. (Prolonged applause).

SPEAKER BROOK thanked Dr. West in the name of the House of Delegates for his interesting talk relative to the work of the American Medical Association.

REPORTS OF COMMITTEES DELEGATES TO THE A. M. A.

Dr. W. J. Wilson presented the following report: Delegate's Report of the American Medical Association, May 22-26, 1922.

The first meeting of the House of Delegates for the St. Louis Session was held in the St. Louis Medical Society Building at 10 o'clock Monday morning, May 22, 1922, all the Michigan delegates being present, Dr. W. J. Wilson, alternate, acting in the place of Dr. Guy L. Connor. Dr. Dwight H. Murray of Syracuse, having died suddenly at his home, Oct. 31, 1921, the Vice Speaker, Dr. F. C. Warnshuis of Michigan, was in the chair.

After the address of the Speaker, the usual reference committees were appointed by him. To these were referred reports of the various officers, also various resolutions as they were presented by members.

The House of Delegates reaffirmed its position on State Medicine as follows:

"The American Medical Association hereby declares its opposition to all forms of 'state medicine,' because of the ultimate harm that would come thereby to the public weal through such form of

medical practice. 'State Medicine' is hereby defined for the purpose of this resolution, to be any form of medical treatment, provided, conducted, controlled or subsidized by the federal or any state government or municipality, excepting such service as is provided by the Army, Navy or Public Health Service, and that which is necessary for the control of communicable diseases, the treatment of mental disease, the treatment of the indigent sick and such other services as may be approved by and administered under the direction of or by a local county medical society and are not disapproved by the State Medical Society, of which it is a component part."

On account of there being no established rules of procedure for Group Clinics, the question of their relation to the public and profession was treated in the form of an amendment to the Principles of Ethics and adopted. It is as follows:

"Section 1. Any individual or any institution, private or public, or corporation or association or group of individuals under whatever name, which shall solicit patients by circulars or advertisements to the general public, shall be considered to act contrary to the best interests of the profession and the public, and shall be deemed unworthy of the approval and support of the regular medical profession.

"Section 2. Any individual or any institution, private or public, or corporation or association, or group of individuals under whatever name, which has for its purpose to, or which actually does, unfairly advertise a small group of physicians, to the detriment of the whole profession shall be deemed unworthy of the approval and support of the regular medical profession.

"Section 3. Any individual, or any institution, private or public, or corporation, or association, or group of individuals, under whatever name, which shall solicit or collect funds under the guise of charity and then offer free medical treatment to persons able to pay for such medical services and thus pauperize such recipients of charity, and rob them of their self-reliance, shall be deemed unworthy of the approval and support of the regular profession."

Action was taken also to collect and disseminate all reliable data and information in regard to the methods of the various systems of drugless therapy. The House appointing two of its members to be associated with other men appointed by the Association of American Universities, National Educational Association, the Carnegie Foundation for the Advancement of Teaching and the Federation of State Medical Boards, in all forming a national commission on the subject.

It was also decided to have the Board of Trustees publish, as soon as feasible, a lay medical journal, for the education, in medical lines, of the public.

A resolution was passed, condemning the Shepherd-Towner Law and requesting the various States not to adopt its provisions, it not becoming a law until the passage of an enabling act by the individual state legislatures.

With regard to Medical Education, the Committee decided as follows:

"With regard to the question as to whether more medical schools are needed, your committee believes that all existing medical schools of high grade should be encouraged to enlarge their facilities so as to care for larger numbers of students, not merely by increasing the number and size of buildings and by adding to the physical equipment, but also by the addition of teachers in sufficient numbers, so that instruction could be furnished to the student body in small groups and that high standards may be maintained.

"Your committee approves the suggestion that some of the smaller medical schools, situated in large centers of population, and which can be brought up to higher standards, should be given financial aid as well as larger schools.

"Your committee further believes that those schools with a large population tributary to them, which have been obliged to limit their teaching to two preclinical years, should be enabled to establish the full four years of undergraduate instruction, wherever desirous to do so.

"Your committee favors the establishment of new medical schools in a few states which are large enough to warrant it. Funds would be wisely expended in aiding such communities, if needed, to finance new medical schools.

"It is further believed that the plan of some great foundations to require full-time clinical professorships is not wise and does not receive the support of the general profession. Your committee doubts the wisdom of making the adoption of such a plan a condition of endowment.

"The tendency toward premature or over-rapid specialization is deplored. The practice of entering a special field without the proper preliminary general and special training should be checked. It is urged that medical schools so revise their curriculums as to provide a thorough training for the general practice of medicine, leaving courses in the specialties for the graduate medical school."

The election of officers resulted as follows:

President, Dr. Ray Lyman Wilbur, California.

Vice-President, Dr. Willard Bartlett, Missouri.

Secretary, Dr. Alexander R. Craig, Illinois.

Treasurer, Dr. Austin A. Hayden, Illinois.

Speaker, Dr. F. C. Warnshuis, Michigan.

Vice-Speaker, Dr. Rock Sleyser, Wisconsin.

San Francisco was selected as the place of the next meeting, the time to be set by the Board of Trustees.

The meeting was characterized by a spirit of harmony and good will, no acrimonious discussions taking place.

The Speaker was commended by a rising vote for the tactful and courteous and efficient manner in which he had discharged the duties of his office.

W. J. WILSON, Delegate.

COMMITTEE ON VENEREAL PROPHYLAXIS

DR. UDO J. WILE: The report of the Committee will be found in the program on page fourteen. If I may say one word in deference to Dr. Byington, this report was signed by all the members of the Committee, but Dr. Byington wished to state that he did not agree with the last paragraph of this report. I think it proper that this should be registered here. The last paragraph has to do with the reporting of venereal diseases. In other respects the report has the full accord of all the members.

The Committee on Venereal Prophylaxis has no suggestions of moment concerning the control of venereal disease to make over those which previous committees have recommended to our society.

Your Committee is of the opinion, however, that an entirely new phase of the control of venereal disease merits the attention of the members of this society. With the introduction in various parts of this and other states of Health Centers maintained by the State Boards, as well as by local health authorities, and with the co-operation of the United States Public Health Service, there is developing a dangerous tendency in the treatment of venereal disease, notably in the development of a routine treatment of syphilis.

It is unfortunate that for financial and other reasons, the conduct of the treatment of such

cases lies in many cases in young and inexperienced hands, and it has been deemed necessary to formulate more or less routine in the treatment of these cases.

This tendency to routinization is undoubtedly working enormous harm to the individual case, although perhaps contributing markedly and notably to the statistical study of the incidence of syphilis.

The tendency to prescribe for all cases of the same disease a similar line of treatment completely neglects the individual, and cannot fail to be productive of perhaps greater harm than the actual good which might be accomplished in the assembling of such cases, for control.

Too often in such clinics, treatment is determined, not so much by the symptoms of the individual case, but by routine laboratory tests indicative of the presence of the disease.

So far as is known, no special treatment is given to cases of cardiac, cerebrospinal, hepatic and other forms of visceral syphilitic disease.

Your Committee is of the opinion, therefore, that unless remedial measures are taken, the institution of routine treatment in Public Clinics for syphilis may actually be productive of as much harm as good.

In order to render such public service really valuable, your Committee is of the opinion that the State Board of Health should receive the active co-operation of competent authorities, and should seek to enable those conducting public clinics to meet from time to time and to receive adequate instruction in the care and treatment of the more complicated phases of syphilis and gonorrhea.

The proper control of venereal disease in this state has received a severe setback in the absence of an appropriation granted to the State Department of Health for the hospitalization of public women infected with venereal disease. Your Committee urges that the members of the Society place themselves on record at this meeting as squarely behind the State Board of Health in any request that it may make to the next Legislature for an appropriation for the hospitalization of venereal diseased persons.

Your Committee is strongly of the opinion that the reportability of venereal disease would be better observed by the Members of the State Medical Society if, in accordance with the recommendation of the Society for the past two sessions, the reportability be carried out by name and address of patients only when such are refractory to treatment, or a menace to public health. In all other cases, your Committee believes that the best interests of the patient and the best interests of public good are served when the reports are made out by either initials or number.

Respectfully submitted,

U. J. WILE, Chairman.

G. M. BYINGTON,

A. H. ROCKWELL.

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

Dr. George E. Frothingham presented the following report:

One of the significant signs of the times is the effort that is being made in all walks of life to centralize authority and to concentrate power in the hands of a few. The World War raised many mediocre men to the seats of the mighty and now that the war is over, these men still crave the power that was once theirs and in their vaulting ambition, they would not hesitate to scrap the

Constitution of the United States and relegate the Declaration of Independence to the ash bin.

Medicine has been a great sufferer from this blighting influence. The most strenuous efforts have been made to reduce the medical profession to that of a poorly paid trade, state governed and the leaders have not been from outside but have been men who have been honored by the very men they seek to degrade. The socializing campaign started in 1915, when the Super Man of Germany was in the saddle and leaders of the medical profession vied with one another in lauding the beauties of Compulsory Health Insurance and in fighting to fasten it on the necks of physicians. In 1916, the Resident Trustee of the great A. M. A. went on record publicly as being unequivocally in favor of Compulsory Health Insurance and he wanted teeth put in a bill to make the medical man do his work properly. Here and there throughout the country, a voice was raised by some courageous doctor against the scheme, but his leaders at once denounced him as an ignoramus or one who feared that his pocketbook might be affected and was willing to sacrifice the dear people to his greed. This was the condition that confronted this Committee, when it took up its work. The leaders of the national organization were fighting tooth and nail for Compulsory Health Insurance. The great national A. M. A. Journal was giving them every help possible and it controlled a great number of State Medical Journals through the advertising which it is able to give them. If the State Journal obeyed its masters voice, it was given good juicy advertising. If it essayed to be independent, then it felt the weight of that master. This control of State Medical Journals, the fixing of their policy by the A. M. A. Journal is one of the sinister things in American Medical politics. Better a two page Bulletin, free and untrammelled than a magazine of beauty, bought and paid for by any set of men.

The fight against the socialization of medicine has been long and hard and uphill. But today this Committee can report that the leader who in 1916 was unequivocally in favor of Compulsory Health Insurance, now proclaims that he is unequivocally against it, but no later than 1921, he was advocating Medicinizing socialization, whatever that may be, but analyzed, it seems to be an old enemy with a new mask.

With every passing year, there seems to have been a gradual concentrating of power in the A. M. A. The same group of men have practically been in control, since its organization. To this there might be no objection were they satisfied with retaining control. But instead, it appears that they wish to arrange matters so that they can pass their authority on to their supporters, when perchance they may be through. The plan to reduce the number of trustees of the A. M. A. and to increase their tenure of office to seven years is a part of this plan for centralizing the concentrating power. By the time a trustee shall have served three terms, a new generation well broken in will have appeared and the socializing of medicine will be practically assured.

How many members of the Michigan State Medical Society appreciate the fact that the delegates elected to represent the specialists or so-called scientific sections of the physicians of this country can nullify the votes of a half dozen states. It takes a goodly vote to elect a State delegate. He is under obligations to his State Society and can be called to account. The section delegate may be elected by a handful of men and he is responsible to no one. In St. Louis, I heard section men rather brag of the fact that they never mixed up in their

County and State Societies. Their argument was that the State delegate was not of the calibre to represent the scientific sections. The chairman of this Committee recalled that when he asked one of the scientific section men how he felt on Compulsory Health Insurance, his reply was that he had given it no thought, but his chauffeur had lived in Europe and he would ask him. Yet that gentleman might represent a section on the floor of the House of Delegates and his vote would nullify that of a whole state. There are fifteen section delegates. Sometimes they come practically from one state, but no matter how well distributed, they are a menace to the freedom, well being and democracy of the great American Medical Association. Let them appear as delegates on the floor of the House of Delegates, but do not permit them to vote on anything but scientific subjects. They should not be permitted to vote for the election of officers; they should not be permitted to vote on financial questions nor on matters of business policy.

At the St. Louis meeting, we had a vivid picture of the possibilities of concentration and centralized power. The Judicial Council recommended that its decision on certain questions be final. A delegate from Massachusetts objected to the word final. His contention was that final authority rested with the House of Delegates. The Chairman of the Judicial Council, thereupon arose and explained that the Judicial Council was to the A. M. A. what the Supreme Court of the United States was to this Country. It was the right of the House of Delegates to enact laws, but it was the privilege of the Judicial Council to construe them. That some one must have the final say and naturally it would be the Supreme Court or its counterpart, the Judicial Council.

Shortly after this, the Speaker was asked to make a decision. He promptly turned to the Chairman of the Judicial Council and asked him for an opinion which the Chairman promptly gave and the Speaker gravely announced the Chairman's ruling as being that of the chair. The fact that this incident had something of the joke about it does not lessen the danger. It simply shows how the Chairman of the Judicial Council can be Judge and Jury—Supreme Court, Speaker of the House—and ruler of the medical profession as represented in the A. M. A. But the cry to this will be, how absurd. Doubtless the same thing was said, when the Little Corsican commenced centralizing and concentrating.

This question of concentration of power confronts you. You cannot escape it. If you are to stop it, you must begin now. This Committee submits herewith a series of resolutions bearing on this subject.

Whereas, There is a persistent effort to centralize authority and place all power in the hands of an active minority to the exclusion of the great working majority;

Whereas, If the Medical Profession is to remain an independent profession and not be degraded to that of a State trade, poorly paid, the rights of the majority to rule must be jealously safeguarded;

Resolved, That the Michigan State Medical Society is opposed to any movement which will extend the term of office of trustee of the A. M. A. or reduce their number.

Resolved, That the right of Section Delegates to vote on matters of expenditure and policy of the A. M. A. be abrogated. That they be given the privileges of the floor of the House of Delegates—that they be permitted to enter into all discussions, but that their right to vote be rigidly

confined to questions of purely scientific character, nor shall they vote for the election of officers.

Respectfully submitted,

GEORGE E. FROTHINGHAM, Chairman.

COMMITTEE ON MEDICAL EDUCATION

Dr. Warnshuis stated that this report was published in the program and unless there was some objection, it would be referred as printed.

In looking over the field of medical education and its progress during the last year, your committee finds no very striking development or changes to report. We do however, see certain tendencies which we believe to be of interest and which we desire to call to your attention. Discussions taking place among educators during the past year show clearly the recognition of the fact that the present high standard of requirement with the accompanying disappearance of many undesirable schools has reached a solid basis and that there is no evident danger of retrogression. There is also clearly recognized the fact that with the achievement of this high standard has come a certain rigidity of the curriculum which is perhaps excessive. This is partly due to the plan of concentrating the work in pre-clinical subjects in the first two years and partly to a more or less continually adding of new subjects to the curriculum. This has resulted in many cases in a rigid curriculum in which the number of prescribed hours is very large. Some of the class "A" schools have, for some years, been experimenting with elective subjects but it is recognized that the introduction of a full fledged elective system into medical education is surrounded with considerable difficulties. On the other hand, there is clearly evident among the executive officers of medical schools a dissatisfaction with the rigidity and a well marked tendency to diminish the number of required hours. It is beginning to be believed that the absolute requirement of so many hours tends to diminish initiative and individual thinking on the part of the student and tends to produce in medical schools a similarity of course which deprives them of desirable individuality. Your committee believes that there will be evident within the next few years an effort to relieve this rigidity and to permit schools, while still maintaining a high standard, to develop more individuality of requirement.

Another clearly evident tendency is to diminish the required teaching in the surgical specialties, particularly of ophthalmology, and otolaryngology and push this work into the post-graduate field. This development is in considerable part at least due to the desire to make more room in the undergraduate years for a larger teaching allotment to hygiene and preventive medicine. The importance of these subjects has long justified the allocation of more time than has been possible but it is becoming increasingly clear that the recent medical graduate has insufficient knowledge of the field of preventive medicine and as a result has failed to take his full part in the responsibility for the building up in the community of sound practice in the field of preventive medicine. Though it has long been recognized that the community looks and must look to her physicians for advice and guidance in this field, there is some evidence that of late years recent graduates have failed to keep abreast of progress and have been relatively

speaking less concerned with this aspect of their public obligation than would be desirable. We therefore view with satisfaction the tendency to increase teaching in this field and believe that improvement in the relations between the profession and the public may be expected along this line.

Your committee desires to call attention to the increasing tendency all over the country to require at least a year in a properly equipped hospital as an essential part of the preparation for the practice of medicine. In some medical schools notably those of Minnesota and Illinois, a fifth year has been added to the curriculum known as the hospital year. In other states notably in Michigan, the requirement has been made by the Board of Registration in Medicine and this is, we think, likely to be a more common development than the requirement made by the medical schools. It is, of course, important that in this development, the medical profession and the Board of Registration in Medicine should work in a close co-operation. The requirement will have the effect of increasing the number of applicants for hospital positions and it will, of course throw upon the hospitals the requirement to present a satisfactory service. This will require careful collaboration and a most cordial co-operation between those responsible for the conduct of hospitals and the State Board of Registration in Medicine. Your committee would suggest for your consideration the desirability of the appointment by the Society of a committee to co-operate with the Board to the end that this development may be worked out most satisfactorily to all concerned. It is quite clear that the development is in the interests of a high standard of medical practice and is one in which the profession is vitally concerned.

Your committee believes that the field of medical education may properly be held to include the education of public opinion. We therefore regard the developments of the current year which have resulted in the formation of a joint committee representing the Society and others interested in medical education as an important step in advance. We would ask that the Society consider carefully the development which has taken place to date and throw the whole weight of its authority to the furtherance of the work of this joint committee. It seems clear that in this age sound thinking by the general public on matters of health can only be brought about by a careful thought out program of public education. Undoubtedly, this education must be begun in the public schools and important progress has been made in this state in this direction, but it also appears to us clear that under present conditions education of the adult population to the end that there shall be more opinion based upon fact and less opinion based upon guess work, is of prime importance. The mushroom development of various irregular schools has been the result of a lack of reasonable knowledge on the part of the public of ascertained fact in medical science. Attack upon these irregular groups as individuals seeking to violate the law is in some danger of failing to hit the mark and of resulting in giving them the very advertisement that they want and of making out of them martyrs. We are strongly of the opinion that public education rather than attack upon cults and sects is likely to get results. An educational campaign backed by the Medical Society, by medical educators, by public health authorities and by interested and pub-

lic spirited laymen will, we hope, commend itself to the good judgment of the Society.

Respectfully submitted,

HUGH CABOT.

W. H. MacCRAKEN.

COMMITTEE ON LEGISLATION AND PUBLIC POLICY

DR. J. B. KENNEDY: Mr. Chairman, Gentlemen: Fortunately for me, and fortunately for you gentlemen of the House of Delegates, the main proportion of my report has been already covered by the Chairman of the Council. Ours is a sort of double committee, a Committee on Legislation and Public Policy. The two are interrelated. Public policy is very important to secure proper legislation. Early last fall I was giving a good deal of thought to the activities of my committee and after a conference with some gentlemen in the east, members of similar committees in Massachusetts and New York, I came to the conclusion that the wise thing for our committee, so far as public policy was concerned, was to undertake a campaign of education of the people, because, after all, Mr. Speaker and Gentlemen, it is the people we must depend upon for favorable legislation. Legislators will do just what the people want them to do. So I tried to get a meeting of my full committee, but we are located in wide-spread portions of the state, some in the northern peninsula, and it was impossible to get such a meeting.

With the idea of public education still in my mind, I had a conference with President Burton of the State University. I frankly outlined what I had in mind and suggested that we might get some co-operation through the University of Michigan Extension Bureau. The response was most satisfactory from President Burton. He was good enough to say that he would like to discuss the matter further with me, and when he returned from a meeting of the Rockefeller Institute he wished me to take the matter up with him, which I did. He set a certain day and I asked if I might have with me our President, Dr. Kay, and our ex-president, Dr. McLean. I received a very courteous letter from President Burton and he suggested that on his part he would have Dr. Cabot and Dr. Henderson present. We had a three-hour conference and explained fully what was in our minds. The response was splendid. President Burton thought it an excellent idea and suggested that we have an early meeting and in the meantime he would take the matter up with the President of the State Extension Bureau. We had another meeting, the gentlemen I have mentioned representing the State Society and those representing the University being present and we had a full discussion. We were unanimously of the opinion that it would be a wise thing to overcome that feeling of unrest and conduct a campaign of education among the people, telling them just what scientific modern medicine and surgery is doing and is trying to do for the people. Committees were organized and then in the early part of January I wrote to Dr. Henderson and invited the gentlemen representing the University of Michigan to come into Detroit and meet with your Council. They came. It was a very satisfactory conference. You know what they are now doing. I think it is a splendid work. It is most excellent and it is being carried on

under the proper auspices. I met Dr. Henderson a few weeks ago and he told me that requests were coming in from all over the state asking that certain representatives be sent through the State to talk to the people on scientific medicine and surgery. Of course, it is a little late in the season to do much work along these lines, but really active work should begin early in the fall. There should be a whole-hearted campaign conducted in this state before the legislature meets in January next. I think it is an excellent thing and I do hope that this House of Delegates and the members of the profession throughout the State will give the most earnest and active co-operation and help to your committee and the committee from the University of Michigan.

The most essential thing is the matter of legislation that will come up in the next session of the legislature. You are aware that at the last session of the legislature we pursued a policy of opposition, but that won't do, we cannot always succeed by those means. We must offer something constructive. We have had several conferences about that. I have been in touch with every movement that has been made in the New York legislature. I have had almost daily reports from the Committee in Albany. I have huge series of reports telling of the various measures that have been inimical to the medical profession. They make some splendid suggestions. They will be excellent records for us to adopt when the legislature is next in session. A lot of very vicious bills, fifteen of them, were introduced in one state legislature. I wonder how many of you are familiar with those bills? How many of you know that a bill came up in New York providing that every physician examining a female patient in his office could do so only in the presence of a female nurse. That is a piece of vicious legislation, to say nothing of what it implies. There are certain cults in Michigan that are very active. I do not think, however, they are going to introduce a bill legalizing them to practice in the State of Michigan. I think they are going to ask for a referendum and if they do it will be given them. We have a suggestion to make as to how to stop a such procedure as that, a constructive piece of legislation. I have had several conferences with men high in authority in the state and they have been good enough to suggest how to proceed. They have suggested that a new general law governing all these things, even State Medicine, should be formulated and introduced at the next legislature, and I have good authority for stating that if that bill is in the interest of the common people and in the interest of the profession, that that bill will be passed and will put an end to chiropractors and all those cults. What that bill is to be I do not think it would be wise to discuss at this time. That bill is being drafted in skeleton and is being added to from time to time as suggestions are being made from various States in the Union, and it will be ready for submission, I hope, to your Council at its January meeting. That will be in time for presentation at the next meeting of the Michigan State Legislature.

These reports were all automatically referred to the Business Committee.

NEW BUSINESS

Dr. Burt L. Shurly, Wayne, presented the following report dealing with the Veterans' Bureau:

Whereas, The Veterans' Bureau has agnored the contracts of hospitals, conducted lay inspections of same, placed incompetent lay district managers over competent medical men, who have

interfered with the medical care and proper examination of veterans for compensation, accepted the dictation of the American Legion and welfare officers in the appointment and control of the medical officers for duty; established American Legion Hospitals and employed medical men without due consideration of professional or executive capacity or proper pay,

Be it Resolved, That a Committee of three be appointed by the President of the Michigan State Medical Association to consult with the Veterans' Bureau and establish justice, promote efficiency, conserve wastage of the people's money, protect the ex-soldier and ultimately aid in the establishment of scientific government hospitals with fairness to civil hospitals and abolish political hospitals conducted by the American Legion.

This resolution was automatically referred to the Business Committee.

Dr. O. G. Johnson, Fostoria, introduced the subject of the Roosevelt Hospital at Camp Custer, and moved that a committee of five be appointed to visit this hospital so that the work there might be brought closer to the profession and to the people throughout the state, this committee to be appointed by the chair and to report at the next meeting of the State Society. Seconded and carried.

As this concluded the business of the Second Session, the House of Delegates adjourned at 9:40 P. M. to reconvene at 8:00 A. M. Thursday.

THIRD SESSION

The third session of the House of Delegates of the Fifty-seventh Annual Meeting of the Michigan State Medical Society was called to order at the Hotel Durant, Flint, June 8th, 1922, at 8:10 A. M. by the Speaker.

ROLL CALL

THE SECRETARY reported that he held forty responses to the roll call and moved that these be accepted as the response to the roll call for the third session of the House of Delegates. Motion seconded and carried.

THE SPEAKER announced that a quorum was present and declared the House duly constituted for the transaction of business.

REPORTS OF COMMITTEES OF THE HOUSE

Dr. Carl F. Moll, Secretary of this committee, presented the following report:

BUSINESS COMMITTEE REPORT

REPORT OF SPEAKER

We approve of the recommendation of Speaker that the House of Delegates convene the day previous to the day of regular scientific sessions and that the sessions be held at 9:30 A. M., 2:00 and 7:30 P. M., and that a fourth session be held on another day if deemed necessary.

The committee approve in spirit of the recommendation of the Speaker in regard to the proper adjustment of fees for the middle classes, but we do not deem it at this time advisable to appoint a committee to take up this matter.

We do not at this time recommend a change in the present schedule of Medical Society dues. The committee approve of the position taken on state medicine by the House of Delegates of the A. M. A., but believe that such work as done by State Universities in the care of the health of their students should be also accepted.

We also approve of the establishment of a legislative bureau.

We further approve of the resolution pertaining to the medical use of whisky to be dispensed by the government in sealed packages.

We also endorse the recommendation relative to not stating the nature of the illness for which a narcotic prescription is written.

We approve of the publication of a Lay Medical Journal by the A. M. A.

We approve of the resolution relative to the free physical examination of indigent persons.

REPORT OF COUNCIL

We heartily endorse the plan of the State Medical Society working in co-operation with the Extension Bureau of the University of Michigan, in educating the public.

We approve of the reports of the Committee on Venereal Prophylaxis and request the State Board of Health for the third time to modify, as within their jurisdiction, the manner of reporting of venereal disease in accordance with the last paragraph of the committee's report.

CIVIC AND INDUSTRIAL RELATIONS

We have considered the report of Civic and Industrial Relations Committee and believe that the representative power of the section delegates as now constituted, should be maintained.

We concur, that the Michigan State Society is opposed to any movement which will extend the term of office of trustees of the A. M. A. or reduce their number.

The resolution presented by Dr. Shurley was considered by the committee and referred to the Committee on Legislation and Public Policy for investigation and to report back to the Society.

We endorse the request of Dr. Johnson that a committee of five be appointed by the President to carry out his recommendations.

We recommend that the council pay 60% of the expense of the delegates to A. M. A. at the San Francisco meeting.

W. J. WILSON, Chairman.

V. H. VANDEVENTER.

GUY L. BLISS.

Business Committee.

Dr. W. J. Wilson, Chairman, moved that the report be adopted. Seconded.

Dr. A. W. Hornbogen, wished the Society to recommend that the sectional delegates to the American Medical Association should not have a vote in the House, claiming that they knew nothing about the policies of the Association.

Dr. George E. Frothingham stated that in Boston, New York had fifteen section votes. This year Illinois had the majority of section delegates. In his opinion this gave the state multiple representation, which was not democratic. He thought the section delegates had a right to vote on matters pertaining to sectional work, but believed that was as far as it should go.

DR. W. J. WILSON: I think it is only fair to state that the committee was divided on this matter. Dr. Moll and I disagreed with the report as presented. We thought if these delegates came in an advisory capacity in regard to sectional matters that was what their purpose was, but when the state is already represented why should we

have more representatives from any individual state.

DR. UDO J. WILE: Speaking for the members of the committee who differ from the minority of the committee, I am of the opinion that the function of the members representing the sections and their places in the House of Delegates should be maintained as it is. I think it should be perfectly clear that this is not an attempt to give these gentlemen something which they do not already have. I wish to state that it is practically the unanimous opinion of the various sections that they should continue to have a vote in the House. We have in the Section with which I am interested a delegate who I think acts with as good knowledge as any of the delegates from the various states. Furthermore, I wish to call your attention to the fact that there are only fifteen delegates in the House, consisting of one hundred members, and it is inconceivable to me that those delegates should be banded together in any political way. If so, it would be to see that the programs of the various sections are carried out. I wish to call attention to the fact that our former President, Dr. Hubert Work, is also of the opinion that the voting power of the fifteen delegates should be maintained.

Dr. Wilson's motion that the report of the Business Committee be adopted was put to a vote and carried.

NEW BUSINESS

Dr. Warnshuis presented the resignation of Dr. W. T. Dodge, as follows:

"June 7th, 1922. To the Chairman of the Council: I hereby tender my resignation as Councillor of the Eleventh District, and request immediate acceptance. Respectfully, W. T. Dodge."

Dr. George E. Frothingham moved that the resignation be accepted. Seconded and carried.

Dr. Guy L. Connor presented the following resolution:

WHEREAS, The next meeting of the American Medical Association will be held in San Francisco, and,

WHEREAS, The expenses of this trip will be somewhat greater than when the Association meets in an eastern state, therefore be it,

RESOLVED, That we recommend to the Council that 60 per cent of the expenses of the delegates be borne by the Society and 40 per cent by the delegates personally.

This resolution was automatically referred to the Business Committee.

UNFINISHED BUSINESS

The Secretary stated that under the report of the Council it was provided that a committee of five members representing the Michigan State Society be appointed to function with the University Extension Bureau, and ask what action the House desired to take.

Dr. G. C. Hafford, Calhoun, moved that the present committee be continued. Supported by Dr. J. A. Wessinger, Washtenaw and carried.

As this completed the business before the third session, the House of Delegates adjourned at 9:00 A. M., to reconvene at 8:00 A. M. Friday.

FOURTH SESSION

The fourth session of the House of Delegates of the Fifty-seventh Annual Meeting of the Michigan State Medical Society was called to order at

the Hotel Durant, Flint, June 9th, 1922, at 8:00 A. M., by the Speaker, Dr. J. D. Brook.

ROLL CALL

THE SECRETARY reported that he held the responses of forty-five delegates and moved that this be accepted as the official roll call of the fourth session of the House of Delegates. Seconded and carried.

REPORT OF NOMINATING COMMITTEE

Dr. I. L. Spaulding, Chairman, presented the following report: Your committee desires to recommend the following gentlemen:

Speaker, Carl F. Moll, Flint.

Vice-Speaker, Ralph Blach, Kalamazoo.

A. M. A. Delegates, (Four) F. C. Warnshuis, Grand Rapids; A. W. Hornbogen, Marquette; J. D. Brook, Grandville; G. E. Frothingham, Detroit.

A. M. A. Alternates, (Four) R. H. Nichols, Holland; H. A. Luce, Detroit; A. S. Kitchens, Escanaba; C. E. Taylor, Jackson.

Vice-Presidents, (Four) J. G. R. Manwaring, Flint; John McNamara, Lansing; T. F. Heavenrich, Port Huron; W. K. West, Painesdale.

Councilor, George LeFever, Muskegon. (In place of W. T. Dodge, resigned.)"

Dr. George M. Livingston, Wayne, moved that the report of the committee be accepted and that the Secretary cast a unanimous vote for the gentlemen nominated. Supported by Dr. J. Albert Kimzey, Wayne, and carried.

The Secretary reported the vote cast and the Speaker declared the gentlemen duly elected.

Supplementary to the report of the Nominating Committee the Secretary read the following invitation:

"June 9, 1922.

"To the Secretary and Members of the Michigan State Medical Society:

"The Ingham County Medical Society and Chamber of Commerce extend to you a cordial invitation to hold your next Annual Meeting in Lansing, the Capital City, and assure you we will do all in our power to make your visit an enjoyable and profitable one.

"Fraternally yours,

"W. G. WRIGHT, Delegate."

On motion seconded and carried, the selection of the next meeting place was referred to the Council, with power.

UNFINISHED BUSINESS

Dr. George E. Frothingham, Wayne, introduced a resolution to the effect that the House of Delegates request the Council to make provision for a lantern for each Section of the Society, and for the entertainment of one guest for each Section, and moved its acceptance and adoption.

Seconded by Dr. J. H. Charters of Wayne, and carried by unanimous consent and vote of the House, and the Speaker declared the resolution duly adopted.

REPORT OF BUSINESS COMMITTEE

Dr. W. J. Wilson presented the following supplementary report: (See original report.)

Dr. J. Albert Kimzey, Wayne, moved its adoption. Seconded and unanimously carried.

Dr. G. C. Hafford, Calhoun, introduced the subject of the appointment of the new committee to reconstruct the Constitution and By-Laws.

Discussed by Drs. Charters, Johnson, Clark and Frothingham.

Dr. G. E. Frothingham moved that a committee be appointed to go over the Constitution and By-Laws submitted by the American Medical Association and present a report at the next Annual Meeting. Seconded and carried and the following gentlemen were elected to serve in this capacity:

Dr. A. L. Seeley, Tuscola.

Dr. G. C. Hafford, Albion.

Dr. Angus McLean, Detroit.

Dr. W. J. Kay, Lapeer.

Dr. F. C. Warnshuis, Grand Rapids.

Dr. T. F. Heavenrich, Port Huron, moved that the House of Delegates express to the Genesee County Medical Society, the citizens and the press of Flint, their thanks and appreciation of the hospitality, courtesy and entertainment so generously afforded the Michigan State Medical Society.

Motion supported by several and unanimously carried by a standing vote.

The Secretary asked the desire of the House regarding the meetings of the House of Delegates at the next Annual Meeting of the Society, as to whether they should occur at 10:00 A. M., 2:00 and 7:30 P. M. on the day preceding the regular sessions of the Society, with an additional session on the last day if necessary.

The Speaker thought it would be well to leave this matter to the judgment of the Secretary.

Dr. W. J. Kay stated that the widow of Dr. Chamberlain of Flint had recently been severely injured in an automobile accident, and asked the sentiment of the House in regard to sending her a few flowers with a suitable note of sympathy, to let her know that the profession had a sentimental side that was worth while and that she was remembered because her husband had been an active member of the Society for many years.

Dr. W. J. Wilson moved that the Secretary send suitable flowers accompanied by a letter expressing the sympathy of the Society.

Supported by several and unanimously carried.

INDUCTION OF NEW SPEAKER

Dr. Brook appointed Dr. Hornbogen to conduct Dr. Moll to the chair.

DR. J. D. BROOK: It gives me much pleasure, Dr. Moll, to hand to you the token of the Speaker, (presenting gavel) of the House of Delegates, and I trust it will be as much pleasure to you to serve in that capacity as it has been for me. (Applause.)

DR. CARL F. MOLL: Gentlemen, I thank you greatly for this honor, and if I can only in small measure weigh up to what our first Speaker has accomplished—his very constructive, comprehensive speech and the able way in which he has conducted the meetings of the House, I shall feel that I have done my full duty to the Society. (Applause).

NEW BUSINESS

Dr. J. H. Charters, Wayne, asked the unanimous consent of the House for the introduction

of the following resolution. This consent being granted, the resolution was presented, as follows:

Dr. Charters also moved that the Secretary draft a resolution to be sent to the governor providing that the patients at the Psychopathic Hospital be segregated and not assigned with the insane until scientific study had been made of each case. Supported by Dr. I. L. Spaulding, Lenawee.

THE SECRETARY: For the information of the House, I wish to state that this request comes from our Legislative Committee and it is asked largely for its effect upon our situation with the legislature. It is a general thing that does not apply particularly to the Hospital at Ann Arbor, but to any hospital that may take such patients.

This motion was discussed by Drs. Heavenrich, Hafford, Johnson, Bonneville and Bell, after which it was put to a vote and carried.

As this concluded the business of the House of Delegates for the Fifty-Seventh Annual Meeting, on motion, duly seconded, the House adjourned sine die.

HAY FEVER

The desensitization treatment of hay fever patients is now in full swing, for the annual August datings have not been canceled. However, there are procrastinators and unbelievers in this domain of experiment, as in all others. There will be plenty of hay fever this year, notwithstanding the endorsement of the pollen extract desensitization treatment (prophylactic) by Dr. Scheppegegrell, President of the American Association for the Prevention of Hay Fever (who has just written a book on the subject), and others. These patients are not altogether at the mercy of the ragweed, however, for it is possible to mitigate their condition by the application of ointments, inhalants or sprays.

The nasal mucosa is disorganized, relaxed, weeping, as a result of the pollen bombardment. It can be toned up to a material degree of resistance and independence by the use of Adrenalin (P. D. & Co.) in spray, inhalant or ointment form. When a comparatively weak solution is used in spraying, no reaction follows, and the applications may be repeated as often as desired without risk of toxic effect. Ointments and inhalants of Adrenalin are rather more convenient to use than the spray, though not so prompt in their effect. They contain Adrenalin 1:1000, and it is the gradual release of the adrenalin that prevents a too pronounced astringent effect when they are applied.

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AUGUST, 1922

Editorials

A PROPOSED NEW UNIVERSITY HOSPITAL TRAINING SCHOOL FOR NURSES OF VITAL INTEREST TO PROFESSION

We are calling our members' attention to a new plan for the establishing of a training school for nurses in connection with our University Hospital. Information regarding this plan first came to us during the forepart of July. We at once perceived that the profession was vitally interested in this proposition and that if it was consummated it would have a baneful influence upon the future of the Medical Department of the University of Michigan as well as upon the profession of the state. To that end we immediately commenced to secure information and this that is imparted in our editorial is all that we have been able to secure at the time of going to press. The matter has been placed before the president of our State Society and he has taken it up with our several committees. Our members will glean from the correspondence that is incorporated in this editorial that your officers and committees are alert to the situation and are bending every effort to conserve the profession's interest and future welfare. At the end of this editorial we are appending a few statements and we are in hopes that in our next issue we may be able to

supply our members with additional data in regard to this plan.

Michigan State Medical Society,
Office of the Secretary-Editor
Powers Theater Bldg.

Grand Rapids, Mich.,

July 11, 1922.

Dr. C. G. Parnall, Superintendent,
University Hospital,
Ann Arbor, Michigan.

Dear Dr. Parnall:—

For the purpose of securing authentic information so as to intelligently answer the inquiries that are coming into this office, as well as to acquaint the profession with the facts, will you not answer in complete detail the questions contained in this letter and authorize me to place your answer at the disposal of the officers and members of our State Medical Society?

1—What, in general, does the "Committee for the Study of Nursing Education" (Chairman Winslow) propose to recommend in the matter of the super-trained nurse and the creation of a distinct nursing group not subordinate to the medical profession? What would be the status of this group, its relation to the profession, its relation to the faculties of medical schools, its objects, field and scope of activity?

2—Does the Rockefeller Institute propose to establish and endow such schools in connection with our universities?

3—Did the Rockefeller Institute tender a direct or tentative offer or promise of a million dollar endowment to the University Hospital if it established such a school?

4—What recommendation did you make to the regents and the president of our university in regard to this proposed plan?

5—What is your opinion, and the basis for the same, of such a plan, its need, etc.?

6—Did the medical faculty of the University of Michigan and the hospital staff of the University Hospital take any action thereon or express any opinion upon such a plan? If so, what?

7—Has the profession of the state been consulted and has any effort been made to secure their opinion upon the advisability of establishing such a nursing school at the University Hospital? If so, when and how extended was this search for medical approval?

8—Does the proposed plan and school seek to create a special type of nurse who will independently undertake medical instruction and do away with the long-established policy and principle that the nurse is to render service to doctor and patient under the attending medical man's directions?

9—Will not such a nurse graduate promote so-called "State Medicine" on her own initia-

tive and with complete ignorance of the medical profession? Is it not a socialization of medicine?

10—Should not the University Hospital be under the direction and orders of the medical faculty and attending staff in the nursing service and hospital care it renders to the patients, and not act as an independent school or organization?

11—Will you send me a copy of the recommendation you made to the regents and President Burton and the reasons, if any, submitted therewith?

I believe you will agree that this is a matter in which the profession is vitally interested and therefore I shall appreciate your submission of the complete details and discussion of this proposal. Yours truly,

F. C. WARNSHUIS,
Secretary-Editor.

University Hospital,
University of Michigan,
Christopher G. Parnall, M. D., Director

Ann Arbor, Mich.,
July 17, 1922.

Dr. Frederick C. Warnshuis,
Grand Rapids, Mich.

Dear Dr. Warnshuis:—

I have your letter in which you request that I reply to certain questions which you propound regarding a proposal to the regents of the university on the matter of the future organization of nursing education in the university.

In submitting to the regents my own recommendations and a preliminary copy of the report of the Committee on the Study of Nursing Education, I did so in a method prescribed by the rules of the regents and with full knowledge and approval of President Burton. No official action has yet been taken and it would obviously be improper for me to issue unauthorized statements, assuming to represent the president and the board of regents. I must, therefore, refer you to President Burton as far as an expression of opinion on an educational policy of the university is concerned.

I feel perfectly free, however, to say that any apprehension on the part of the medical profession regarding the report of the Committee on Nursing Education advocating standards which will be injurious to medicine is entirely unwarranted. The committee consisted of ten medical graduates, among whom were Welch of Johns Hopkins, Edsall of Harvard, Holt and Salmon of New York, Conner, professor of medicine, and Livingston Farrand, president of Cornell University; five nurses, and four lay members. It need hardly be said that, with the medical profession so represented, anything inimical to medicine or medi-

cal practice would find no place in the report. Indeed the whole attitude of the committee was to make such recommendations regarding nursing education and practice as would tend to improve present unsatisfactory conditions, including the relationship between doctor and nurse.

The committee recognized the need for a group of nurses with special training, such as could be obtained only in schools with university connections, to furnish teachers, public health visitors and executives, and it was in order that we might do our part in this regard that I made my recommendations to the regents. No proposal, however, has been entertained by the committee to consider any plan to abolish the present system of training bedside and hospital nurses other than to improve the quality of instruction. In fact the committee recommends the shortening of the time of training from three years to two years and four months. Moreover, the committee has advised the establishment in suitable institutions of courses of training for nursing aides or attendants in the hope of supplying the demand for a type of service which can be given by a person not so elaborately prepared as the graduate nurse.

I haven't the slightest doubt but that President Burton and the regents intend to consider deliberately the various problems of nursing education with the view of finding solutions which are pedagogically sound and practically sensible. That the medical profession will be injured in so doing is unthinkable.

Very truly yours,
C. G. PARNALL.

CGP-A

Michigan State Medical Society,
Office of the President

Big Rapids, Mich.,
July 8, 1922.

W. H. Sawyer, M. D.,
Hillsdale, Mich.

Dear Doctor:—

1—My attention has been called to the fact that the director of the University Hospital has recommended to the board of regents the adoption of the Rockefeller Foundation principle regarding the establishment of a separate faculty for the training of nurses.

2—I have read the special report of the Rockefeller Committee upon this matter, and have talked it over with a number of members of the profession. We are all of the opinion that this is about the most pernicious rule that has yet been made concerning the training of nurses. The tendency of the ones who have attained eminency in the nursing profession to render themselves entirely independent of the medical profession, it seems to me should not be approved by medical men.

3—Feeling that you, as a member of the board of regents, would like to represent the medical profession thereon, and that you would not willingly be led off by propagandists to represent a few so-called super-nurses or that of executive medical men whom these nurses are able to dominate. The whole tendency seems to be to make the nurses superior to the physician who is responsible for the treatment of the patient. I cannot imagine a hospital being successfully conducted wherein two persons representing different professions are held responsible for the care of the patients. Do you think the medical profession should be made subservient to the nurses? Should not the views of the medical profession be followed in the training of nurses? And should not any changes in such methods of training be held in abeyance until the views of the medical profession can be obtained?

4—I am informed that the bait to catch the board of regents is the offer of the million dollar fund on the part of the Rockefeller Foundation. That would produce approximately fifty thousand a year. Should the medical profession be sold out to a coterie of nurses for fifty thousand a year? I understand that if this principle should be adopted it would be necessary to keep a full force of nurses under pay to conduct the hospital, and that the student nurses provided for would devote comparatively little time to the care of the patients, and that they would be entirely outside the control of the medical faculty of the medical school. I feel sure that if such a course is followed it will be taken by the medical profession of the state as a policy that would be antagonistic to them. I feel certain that the majority of the profession will contend that the instruction of nurses as well as that of medical students should be under the direct control of the medical faculty.

5—I am going to bring this matter to the attention of the chairman of the Committee on Civic and Domestic Relations, of which you are a member, and I shall ask him to call a meeting of his committee and invite in at the meeting quite a number of prominent members of the profession in the state, so that an opportunity may be given to obtain the views of the profession.

6—I had hoped that we were entering upon a new era in which the relations of the profession to the university and its medical school and hospital would be on a more congenial basis than they have been in the past. If the present plan of the director of the University Hospital should be carried out by the regents, I feel that these hopes will be blasted.

7—I hope you will see that no favorable action upon this matter is undertaken by the board of regents until the opportunity is found

to obtain the views of the profession upon the subject.

Very truly yours,
W. T. DODGE,
President.

WTD-M

We have seen Regent Sawyer's reply to Dr. Dodge's communication to him and Dr. Sawyer states therein that the matter will not be considered by the board of regents until the profession has had an opportunity in presenting their opinion and attitude in regard to this plan.

Dr. Hugh Cabot,
University of Michigan,
Ann Arbor, Mich.
Dear Dr. Cabot:—

Will you not please supply me with your opinion and views and also those of the Medical Department of the University of Michigan regarding the proposed plan of establishing a nurses training school in connection with the University Hospital in order that I may utilize the same for the information of our members?

Yours very truly,
F. C. WARNSHUIS.

University of Michigan,
Department of Surgery
University Hospital

Ann Arbor, Mich.,
July 22, 1922.

Dr. Frederick C. Warnshuis,
Powers Theater Building,
Grand Rapids, Mich.
Dear Dr. Warnshuis:—

I have your letter inquiring in regard to the position of the medical faculty on the proposition to establish at the University of Michigan a separate school of nursing education under a separate faculty. I must say frankly that the faculty has expressed no opinion on this matter, as it has never been brought to its attention. The suggestion was made to the board of regents by the director of the hospital, Dr. Parnall, acting in his capacity as chief of the nursing school. In so doing he was, of course, within his rights and was under no obligation to consult or advise the dean or the medical faculty. I have, however, succeeded in obtaining a copy of the report of the Rockefeller Committee and have had an opportunity of discussing the matter with many of my colleagues upon the medical faculty. In the opinions which I have expressed, I am putting forward by own view, though I believe it to be substantially that of many members of the faculty.

In reading the report of the Rockefeller Committee, I do not overlook the fact that it

was made as the result of a careful investigation by a group of people whose position and attainments entitles them to have their expressed views considered with great respect. I trust therefore that you will remember that I entirely appreciate the importance of their opinion and give it every weight. In considering the report, one may look at it from a variety of aspects and it may simplify matters to divide it into separate headings.

Educational Aspect—The final conclusion of the report and the proposition made to the board of regents by Dr. Parnall was that there should be set up at the university a separate faculty under the deanship of a woman trained in nursing and in nursing education. Under this faculty was to be placed all the training of nurses, whether in the ordinary three years' course or for the higher positions of public health and executive work. This, of course, means, if it means anything, that it is desired to carry still further the separation of the training of nurses from the practitioners of medicine. It appears to me fundamental that the practice of nursing and the practice of medicine are utterly inseparable and I further believe, as is pointed out in this report, that the practicing physician is the best judge of the qualifications of the so-called private duty nurse. This proposal of separation can, as I think, have no other effect than the separation of the practitioners of medicine from what one might call the practitioners of nursing and in this way it will deprive nursing education of its most important contact with those whose years of experience qualify them to care for the sick. I was interested to observe in a recent article by President-Elect Wilbur of the A. M. A. the phrase used referring to nurses as lieutenants of the medical profession. This appears to me a sound view, but I am doubtful whether lieutenants can be trained in a different school from commanding officers. I cannot avoid the opinion that there is already in nursing education too much separation from the practitioners of medicine and that this step would therefore be in the wrong direction. The report lays considerable stress upon the fact that nursing education as at present conducted is subservient to the needs of the hospital. It cannot be doubted that such a situation has existed in the past to an important extent, but the criticism is probably less applicable to a hospital such as the University Hospital, which is in itself a teaching hospital, than to any other type. One is somewhat inclined to suspect that what is really meant by subservient to the needs of the hospital is subservient to the needs of the patient, a form of subservience which has heretofore been commonly called service and regarded as an educational ideal. That nurses in training should be im-

portantly subservient to the needs of the patient appears to me self-evident and I find much difficulty in distinguishing in this connection between the need of the patient and the need of the hospital. I do not think it is true that a sound curriculum of nursing education, whether for private duty nurses or for the more advanced positions, cannot be carried out in the best possible way by an education body whose primary duty is to care for patients. Such a body exists here at the present time in the staff of the University Hospital and I cannot see that the erection of a separate faculty not concerned with the care of patients would be compatible with proper treatment.

It is further suggested in the report that the grade of teachers required for the proper carrying out of nursing instruction cannot be obtained unless they be given a university status. The giving of university status does not appear to me to require the erection of a separate faculty. Insofar as these women have the academic and educational equipment which qualifies them to be placed in parallel rank with other members of the teaching staff of the university, this rank could readily be given and would, I think, meet with no important objection.

Hospital Aspect—The erection of a separate faculty as suggested by the report and proposed by Dr. Parnall would, of course, necessarily remove the nurses of whatever class entirely from the control of the hospital and of the hospital staff. They would come to the hospital as do medical students for instruction and a certain prescribed amount of instruction in various kinds of nursing would be required by their curriculum and given by their faculty. It is not inconceivable that in this way some economy of the pupils' time might be affected and it is not impossible that a somewhat more even and balanced curriculum might be actually put into practice. On the other hand, it is not impossible that their relations to the patient in such a cut and dried curriculum might be somewhat less satisfactory than it is at the present and importantly less satisfactory than it has been in the past. But, from the point of view of those who seek to maintain a hospital which will at once care for the sick and provide teaching facilities for medical students, there is a much more serious objection. Under this system, the hospital would be unable to assure its patients an adequate supply of nurses at all times and no hospital could with a clear conscience undertake to receive patients without providing itself with an additional nursing staff, possibly very numerous, which would guarantee it against any failure of the nursing school to obtain a sufficient number of students. This would, I think, very seriously increase the cost of hospital maintenance, which, of course,

means the cost of service to the patient. Now, there is reason to suppose that for the average man the cost of hospital service is today close to the point where he cannot afford it. Any proposition which looks to the important increase of hospital expense will hit the wrong head; namely, the public. In fact, throughout the whole discussion, it appears to me that the patient, which is only another way of saying the public, has been left somewhat out of consideration and that it must be shown beyond peradventure that this proposition would not result in the breakdown of the hospitals now struggling to serve the sick.

Effect on Medical Education—There is still another aspect of this proposal of Dr. Parnall's in which I am acutely interested—that is the effect on medical education. Under this plan there would at once exist two faculties of equal authority using the same hospital for teaching purposes at the same time. Now, much as I believe in the soundness of the Medical School at Ann Arbor at the present time, I am not blind to the fact that it is utterly dependent upon the smooth operation and proper maintenance of a single hospital. To introduced into this rather delicately balanced machinery another faculty which would very properly stand upon its rights and upon its dignity might very easily deal a blow at the very root of medical education in this state. In any case, it is quite clear to me that no such arrangement should be made without very careful consideration of its effect in this regard. It is perhaps not out of place to point out here that at this particular moment there is much evidence that we are trying to make medical education broader and to increase the contact of the medical student with the patient. More and more, medical students are being introduced into the hospitals as part of the organization responsible directly to the management in their relation to the patients. One may therefore be somewhat sceptical of a proposition which looks in precisely the opposite direction and tends to withdraw nursing education from its intimate contact with the medical profession and the patient.

That the report shows that nursing education can be improved and points some methods by which that improvement may be obtained is readily to be admitted. On the other hand, it appears to me that the conclusion that the getting up of a separate faculty is the only method, is open to the gravest doubts. One may readily approve their suggestion for the shortening of the time now required in the training of private duty nurses. One may readily approve their suggestion that the scientific aspects of nursing education can be greatly strengthened, but I cannot approve of any proposition which appears to me to drive a wedge between

the two essential components of that group of people who in a broad way are concerned with caring for the sick. In working out any plan for the improvement of nursing education more counsel should be taken with those actually engaged in the business of looking after sick people, and more suggestion might, I think, be had from the public ultimately, the patient, before these plans are completed. It is not clear to me that a proposal of this kind might not have a very unfortunate effect upon the average hospital the country over and that while we might improve the teaching of nurses in one place, we might not strike a shattering blow at the running gear of the places where sick people must go.

Sincerely yours,

HUGH CABOT,
Dean.

University of Michigan,
President's Office

Ann Arbor, Mich.,
July 21, 1922.

Dr. W. T. Dodge,
President Michigan State
Medical Society,
Big Rapids, Mich.
My Dear Dr. Dodge:—

Your letter of June 20, addressed to President Burton, was shown to me by his secretary. It is part of our religion here not to interfere with the president's vacation once he gets out of town and we have direct instructions to open all mail addressed to him. This will explain why the letter which was marked "Please Forward" was opened and is being acknowledged by the undersigned. If on receipt of this letter you think it is wiser and it is still your desire that your letter should be forwarded to the president and you will advise either the president's office or myself, your wishes will be complied with.

I think I have seen all the correspondence referred to in your letter, including the correspondence between Dr. Warnshuis and Dr. Parnall, and that between yourself, Dr. Frothingham in Detroit and Regent Sawyer. I was in Hillsdale yesterday and with other matters this was discussed with me by Dr. Sawyer. I know personally that there is no intention of taking any steps on the part of the University before the president's return and I am also sure that the Regents would certainly not take any steps which would break up the present friendly understanding between the medical profession of the state and the university. The matter will be fully threshed out and an earnest and presumably successful effort made to arrive at a conclusion which all interests affected will regard as the wisest and best, before any action

is taken. Of this I feel sure. You do not ask me for my opinion and it is perhaps presumptuous for me to offer it under the circumstances, but it is my judgment that it would be highly unfortunate for Dean Cabot or Dr. Parnall to publish their views on a matter which is at present before the Board of Regents. I feel sure you will agree with me that as a general rule it is better to sit down around a table and discuss a matter where all possible misunderstandings can be ironed out and where all can know the exact problem which is being discussed, than it is to have discussions in print which are sure to be misunderstood and sure to put in a false light in some quarter everybody who takes part in them or who is referred to in them.

I presume that by the time this letter reaches you you have received Dr. Sawyer's letter, which he had in type yesterday, but which had not yet been mailed. The president will presumably be back in Ann Arbor about the 5th or 6th of September. He has greatly needed the rest which he can only get if important university and state problems like this one are kept away from him and in a friendly way may I ask your co-operation in seeing that discussion of this question stands still until he gets back and those who are most interested can get face to face around the table? I think that probably any date which might meet your approval toward the middle of September would be agreeable for the meeting suggested by Regent Sawyer in Ann Arbor.

With kindest personal regards, believe me

Very truly yours,

SHIRLEY A. SMITH,
Secy. U. of M.

1. The Rockefeller Foundation appropriated funds to defray the expenses of a committee to study and survey the nurse problem. This committee has been known as the Winslow committee. Its report has been printed, and though we have written for the report, copies have not been received. We have seen a summary released for newspaper publicity.

2. It is stated that these "super-nurses" are to establish a separate, independent profession, and as reported, they are no longer to be subservient to the medical profession.

3. Their activities are to be directed along the lines of Preventative Medicine, Health Clinics, Pre-Natal Clinics and Public Health Work, with, as they state, the home as their field of activity. These activities they will engage in without the aid, advice or direction of the doctor or the profession.

More might be said, but we prefer at this time to postpone final discussion of where such a plan would lead to, were it established. We prefer to wait until our members, council, com-

mittees and officers meet and proclaim the basis that justifies our united opposition to such a scheme. Just now we want you to know that a threatening situation pends.

In the whole matter, we can assure our members that the Dean and Medical Faculty of the University oppose the plan proposed by the Director of the University Hospital and his nurse allies and are deeply concerned in conserving the medical profession's welfare.

TUBERCULOSIS AND WAR GASSES

Much sentiment has developed regarding the effect of war gasses as the cause of subsequent tuberculosis among service men. The press and public alike hold that their being "gassed" was equivalent to dooming these soldiers to a final fatal tuberculosis. In the examination of some 2,000 service men for compensation we never felt that exposure to "gas" in any way affected the onset or progress of tuberculosis. Neither was it considered as having induced the infection. We have rather been of the opinion that the subsequent post service life of the soldier, habits and environment played a more important and true factor in the activity of the disease.

There has recently appeared a report upon the subject by Lieut. Col. H. L. Gilchrist of the Medical Corp of the Army. It is the result of over a year's study and investigation of the subject, during which time every known means was adopted to obtain information on the subject.

The conclusions reached from that study are as follows:

1—As to the incidence of pulmonary tuberculosis resulting from exposure to gas, it would seem that it is far from convincing that gas played any particular role in this connection, and it is doubtful if the incidence of lung tuberculosis among ex-service men is much greater by reason of the part that gas played.

2—Those who claim to have developed tuberculosis a year after leaving the service, from conditions experienced in the Army, certainly have no basis for such assertion. They probably would have become tuberculosis patients even if they had never been in the Army.

3—There are two elements entering into this problem—one neurasthenic, where the men have been gassed, usually very slightly, and believe sincerely that this is a factor in any illness; and, second, mistaken diagnosis in many cases, especially those following influenza, in which instances of unresolved broncho-pneumonia occurred in nodular patches and in which the diagnosis of tuberculosis was frequently based on X-ray plates.

With these findings, together with the opinions of competent interests, based upon their experience in dealing with these cases, let us

no longer foster the opinion that "gas" used during the war induced the tuberculosis incident among service men. It is time that the public be set right in the matter.

CONGRESSIONAL ENACTMENTS

After having passed the house and senate and having been satisfactorily adjusted in conference, this measure was sent to the white house on June 7 for the president's signature. The bill as finally passed is said to have met with approval among the commissioned personnel of the U. S. Public Health Service as well as the medical officers of the army and navy.

Assistant Surgeon General (Colonel)

Over 26 years' service	\$4,000
First appointment above captain.....	4,000
Appointed under Sec. 24, Act June 4, 1920..	4,000
Less than 26 years' service.....	3,500

Senior Surgeon (Lieutenant Colonel)

Over 30 years' service	4,000
Over 20 and less than 30 years	3,500
First appointment above second lieutenant..	3,500
Appointed under Sec. 24, Act June 4, 1920..	3,500
Less than 20 years' service	3,000

Surgeon (Major)

Over 23 years' service	3,500
Over 14 and less than 23 years'.....	3,000
First appointment above second lieutenant..	3,000
Appointed under Sec. 24, Act June 4, 1920..	3,000
Less than 14 years'	2,400

Past Assistant Surgeon (Captain)

Over 17 years' service	3,000
Over 7 and less than 17 years'.....	2,400
First appointment above second lieutenant..	2,400
Present rank July 1, 1920, or earlier.....	2,400
Less than 7 years'.....	2,000

Assistant Surgeon (First Lieutenant)

Over 10 years' service.....	2,400
Over 3 and less than 10 years'.....	2,000
First appointment above second lieutenant..	2,000
Less than 3 years.....	1,500

In addition to this base pay there are also rental and ration allowances. These vary according to whether the officer has dependents. The sum for rental ranges from \$480 a year for an assistant surgeon to \$1,440 a year for an assistant surgeon general. The sum allowed for rations is \$237.25 a year for one ration. The allowance for subsistence is based upon the cost of food in the calendar year 1922 from statistical estimates furnished to the President by the Secretary of Labor. If the cost of food in subsequent years should be reduced, the allowance for subsistence will be accordingly reduced. There is also an increase for length of service in the grade.

A. 2. Army Appropriation Bill.

H. R. 10871.

Passed the house, March 29, 1922.

Passed the senate with amendments, June 2, 1922.

The senate passed the army appropriation bill on June 2, after a short debate lasting hardly three hours. The bill as amended fixed the strength of the army at 133,000 men and 12,530 officers. \$1,800,000 was appropriated by an amendment in the senate for civilian military training camps, and \$2,700,000 for the officers reserve corps, the pay being increased in the senate from \$250,000 to \$2,000,000. Reduction of the commissioned personnel

from its present size to the figure named in the bill is to be accomplished through a selection board of general officers appointed by the president. An outline of the feature of this appropriation measure affecting public health will be found in statement No. 23, p. 3.

A. 3. Giving Government Authority to Secure Land for Hospital Facilities by Condemnation Proceedings:

H. R. 11588.

Passed the house June 5, 1922.

Refusal of land owners in the vicinity of the Dawson Springs Sanatorium, Dawson Springs, Ky., to renew leases on land to be purchased for the benefit of the hospital recently built there at a cost of \$2,500,000 resulted in the introduction of this bill in the house by Representative Kinchelee. After being favorably reported by the Committee on Public Buildings and Grounds, it was passed without a record vote under an unanimous consent agreement. A similar measure has been presented to the senate by Senator Stanley of Kentucky. The provisions of the bill are general in terms, giving the secretary of the treasury power to exercise the right of eminent domain and purchase property needed for government hospitals by condemnation proceedings in the federal courts.

A. 4. Transfer of Leprosarium to Territory of Hawaii:

H. R. 11589.

This measure, which provides for the transfer of the lands and buildings of the Federal Leprosy Investigation Station at Kalawao, on the island of Molokai, to the Territory of Hawaii, was favorably reported to the house of representatives on June 8, by the Committee on Territories. The bill was placed on the house calendar.

A. 5. International Conference to Prevent Pollution of Navigable Waters:

H. R. Res. 297.

Passed the house June 5, under suspension of rules.

This resolution requests the president of the United States to call a conference of maritime nations to adopt means for preventing the pollution of navigable waters by oil-burning and oil-carrying steamers.

A. 6. Compensation for Federal Employees Suffering Injuries While in Performance of Duties:

S. 1911.

Passed the senate, June 2, 1921.

Passed the house, June 5, 1922.

This bill is an amendment to the Employees Compensation Act and empowers the United States Employees Commission to receive claims for injuries from employees sixty days after the date of injury, and also to receive claims for compensation for death within one year after the death. The purpose of the amendment is to extend the time of filing claims for the benefit of certain federal employees who would not receive benefits under the present law. The bill has gone to the president.

B. NEW LEGISLATION

B. 1. Additional Funds for Treatment of Leprosy:

S. 3665.

Introduced by Senator Ransdell, June 1, 1922.

Referred to the Committee on Appropriations.

The sum of \$650,000 would be appropriated by this proposed act to enable the secretary of the treasury, through the U. S. Public Health Service, to provide care and treatment for persons afflicted with leprosy. The money, should the bill become a law, would be used in improving the government leprosarium at Carville, Louisiana, and also for the transportation and care of patients at that institu-

tion, as well as for the prevention of the spread of leprosy in the United States.

B. 2. Amendment to Constitution on Child Labor: H. J. Res. 240.

Introduced by Representative Tague, May 31, 1922.

Referred to the Committee on the Judiciary.

This amendment would give congress the authority to regulate, limit and prohibit the employment of persons under eighteen years of age. It is similar in language to the resolutions for a constitutional amendment upon the same subject introduced in the house by Representatives Fitzgerald and Perlman. (See statement No. 27, p. 4.)

C. A REVIEW OF LEGISLATION CONCERNING NURSES

1. National

All legislation pertaining to public health is, obviously, of interest to nurses and public health nurses. The Sixty Seventh Congress has had before it, however, a number of bills which directly concern the members of the nursing profession. Perhaps the two most important are the Wadsworth-McKenzie pay bill (H. R. 10972) and the Lehlbach-Sterling reclassification bill (H. R. 8928.)

The Wadsworth-McKenzie bill is designed to readjust the pay and allowances of the Army, Navy, Marine Corps, Coast Guard, Coast and Geodetic Survey and Public Health Service. It passed the house on May 12, 1922 and the senate on May 22, 1922, was considered in conference, agreed upon, and signed by the president.

The act takes effect on July 1, 1922. Section 13 of the act provides the following annual rates of pay for army and navy nurses (members of the nurse corps of the Public Health Service are not affected by this act.)

First three years service.....	\$ 840
Second three years service.....	1,080
Third three years service.....	1,380
From tenth year on.....	1,560

In addition to their pay as nurses, superintendents of nurses receive a money allowance of \$250 a year; assistant superintendents, directors and assistant directors, \$1,500 a year; and chief nurses \$600 a year. Nurses are also allowed subsistence (60 cents a day) and an allowance for rental (\$20 a month), the same as certain officers.

The Lehlbach-Sterling bill provides for reclassification of all civilian government employees. The bill passed the house on December 15, 1921 and was reported in the senate on February 3, 1922 with several important amendments, some of which directly concerned nurses. In the bill as originally drawn, nurses were included with housekeepers under the institutional service. The senate eliminated this service entirely and placed nursing in the professional and scientific and subprofessional services. In the former service, there are six grades with compensation ranging from \$1,800 a year to \$7,200, depending upon the type of work performed, the amount of responsibility, and other factors. Salaries in the subprofessional service are from \$1,020 to \$3,180 a year, divided into six grades. The nurses of the Public Health Service would be governed by this salary schedule.

Several pension bills, which are pending, contain provisions relating to nurses. The bill H. R. 4, which passed the house on February 1, 1922 and has been reported in the senate, provides for a pension of \$20 a month to all women who served as nurses for ninety days or more during the war with Spain, the Philippine Insurrection, or the Chinese Boxer rebellion. A bill (S. 3629) has also been introduced to give a similar pension to nurses

supplied by the American Red Cross to the army for thirty days or more during the war with Spain. Another pension bill (H. R. 10031) would give \$50 a month to nurses who served in the Civil war. No action has been taken on these last two bills.

2. State

During 1922 the legislatures of eleven states have been in session. Eight of the nine which began in January adjourned in April. The Massachusetts legislature is still in session. The Louisiana legislature convened in May and that of Georgia in June, both being now in session. Six bulletins on state health legislation were issued between January and April by the U. S. Public Health Service with the co-operation of the National Health Council. Nursing legislation as reported in these bulletins, has been enacted or considered in several of these states.

In New York, the law relating to registration of nurses was amended by extending until January 1, 1923, the period under which nurses could apply for license to practice as registered nurses under waiver, and also extending until September 1, 1922 the date of waiver for attendants. This was done in order to accommodate many nurses who had not already taken advantage of the law, and who could only do so under an extension of it. Maryland passed laws requiring the registration of practical nurses and giving credit to nurses for training received in schools of public health. Massachusetts has passed an amendment to the school medical inspection law, by which suspicious cases among school children are referred to the school nurse or physician. A bill to increase compensation of the chairman of the board of registration in this state was defeated. In Virginia, a law adding a clinic of doctors and nurses to the bureau of tuberculosis education of the State Board of Health was passed. A bill authorizing the State Department of Health to employ tuberculosis nurses was introduced in New Jersey, but not passed. There were no changes in nurse registration laws in Kentucky, Mississippi or South Carolina.

ADJUSTMENTS OF THE SPINAL COLUMN REALLY INDICATED IN CERTAIN CASES

The Chiropractic Association (Mich.) at its annual meeting at Lansing in June passed unanimously a resolution pledging its members to serve jail sentence in the event of conviction under the Michigan Medical Act and to refuse to pay fines even if the court allowed an option in the case.

Within a week some half a dozen of the prominent members of the Association appeared for sentence in the Detroit Recorder's Court and were sentenced to pay \$200.00 or to serve six months in the House of Correction. The fines were paid forthwith.

BUREAU OF LEGAL MEDICINE AND LEGISLATION

Complying with the request made by the Council on Health and Public Instruction, the House of Delegates of the American Medical

Association, at the St. Louis session, authorized the board of trustees to take over from the Council its medicolegal and legislative work and to organize a bureau through which such work shall be carried on. The board announces the appointment of Dr. William C. Woodward as executive secretary of the bureau. Dr. Woodward's experience in public life, as health commissioner of the District of Columbia and later of Boston, and his legal training have especially fitted him for the position.

The functions of the Bureau of Legal Medicine and Legislation are: (1) To keep in touch with federal and state legislation relating to medicine and public health; (2) promptly and intelligently to advise interested state associations and component societies concerning medical legislation and, so far as practicable, to co-operate with them in such proper action as they may take; (3) to study the circumstances under which threatened actions for malpractice arise, with a view to devising methods, if possible, of reducing the frequency of such actions; of rendering defense—or compromise, if that be indicated—more equitable and effective; and of procuring relief and redress in actions inaugurated and carried on without probable cause; (4) to study and advise generally with respect to legal and legislative matters of concern to the science of medicine and to the medical profession.

The problems which will come up will be many and intricate and their satisfactory solution will depend on proper organization and operation of the bureau. Success will depend also on the whole-hearted support and co-operation of the profession, which is earnestly requested in this effort of the Association to benefit its members and the general public.

THE MICHIGAN MEDICAL ACT AGAIN HELD "AIR TIGHT" BY THE SUPREME COURT

A chiropractor convicted of practicing medicine at Cadillac, Mich., last December appealed the case to the Supreme court upon the following contentions: (a) That "Certificate of Registration" and "License" used in the act were not synonymous terms, therefore, two offenses were charged in the information; (b) That the drugless section of the act is discriminatory, unreasonable and arbitrary and therefore, unconstitutional and void; (c) That the court was not justified in directing a verdict of guilty where the facts in the case were not disputed and therefore held to be admitted.

The court held unanimously against the above contentions.

TYPHOID IN AUGUST

August greets us again, and so does typhoid. Hackneyed as this warning may be, it still remains timely, for we have just emerged from 1921 with a record for typhoid cases far from enviable. And all apparently because of an indifference to typhoid warnings at similar times in years gone by. August will have its excrescences of "enteric fever."

Why a disease, whose etiologic agent has been known and known well for years, whose modes of transmission have been exhaustively analyzed and whose prophylaxis has been successfully practiced as well as preached, should continue to be disgracefully prevalent in many of our progressive Michigan communities is difficult of conception. To a great many it speaks for a wanton disregard of all that scientific men have achieved for public health, a criminal lack of the spirit of co-operation when applied to the preservation of life, a disregard and lack of spirit not tenable in the present day. We therefore again warn of August and typhoid prevalence and offer for serious thought Osler's time-worn analysis of our case: "What is needed in Canada and the U. S. is a realization by the public that certain primary laws of health must be obeyed."

M. L.

A GOLF CHALLENGE

Dr. Frank A. Kelly and Dr. Duncan Cameron of Red Run Golf Club, challenge any two members of the State Society to a golf match. The terms are a 18 or 36-hole match, on a course selected by each side; the match to be determined by the result of those games. Dr. Kelly states, "Let us hear from your good players." Dr. Kelly may be addressed at 1429 David Whitney Bldg., Detroit.

All right, Golfers, go to it. Let us know who accepts this challenge. Incidentally, why not hold a State Medical Golf Tournament?

"JACK PINE OPINATIONS"

(Editor's Note: There is much for thought and reflection in the subsequent paragraphs that come to us from one of our good members in the northern part of the state.)

Will It Come To This?

"You have taken my profession away from me. I was not trained to practice medicine under the supervision of politicians. I will not be responsible for human life unless I can do the things for my patients that my training and experience have taught me are safe and beneficial. Until I am al-

lowed to treat the unfortunate sick as I think they should be treated, I will no longer practice medicine. If I fail to find employment in other occupations, you can take care of me in my idleness even as you are now caring for others—rich and poor.”

We say a lot about socialism and bolshevism. But socialists do not believe in the present plan of state medicine. They say it builds up a special class and is not fair to the rank and file of the medical profession. The medical profession was crowded to the wall in Russia for centuries. As a body it worked for relief from tyrannical restrictions, and today it is upon a more desirable basis than ever before.

Upon a socialistic basis the physician would have at least a fair chance and be upon an equal basis with other occupations. Under the proposed system there will be no medical profession. Simply a band of public fund extractors who hold their graft by the good will of a few political bosses. And the public will be at their mercy.

Kindly salt this down. We may have to dig it up in a couple of years.

In regard to writing your advertisers, I have done so, to most of them, to wake them up and show them that The Journal is potent and that the physicians of Michigan have confidence in The Journal. But, some of them are dropped from my list of correspondents. No matter how good the products of their laboratories, no matter how much I need it, I can get it elsewhere, I can not patronize a firm that advertises upon the wrapper for the benefit of the lay public. Postmistresses and their assistants are in touch with too many gossiping people, the doctor is, in most communities, a marked man, his mail is subject to inspection, and too often the patient knows what the doctor is using before he has received it from the postoffice. Think of how many times the physician has helped introduce preparations to the public. No more advertising aspirin or any thing of that kind on the strength of my recommendation. Plain wrappers for my goods, please.

Your work is good. I do not see how you get through with it all. I hope you will have plenty of help and not be limited too much in expenditures.

Sixty-nine years today, and last night I made a sixty-mile ride over roads that are indescribable.

Some people think that some of our state and national bureaus are wasting the public money. Office help is writing poetical stuff that would not be allowed even paid advertising space in our daily papers. Some of them are teaching brain anatomy and others are announcing the functions of the endocrine glands. Duplications and repetitions are numerous. I have received five copies of one cir-

cular relating to syphilis, this the present week, and during the same time three same identical things about tuberculosis. Good way to keep office help and mailing clerks busy, but it would be better to spend part of the money for free waste baskets. Fifty per cent of the state printing bills should be thrown out. A state representative up the Muskegon way tried to stop some of this nonsense a couple of years ago, but he failed to secure his re-election.

Physicians have lost by being afraid of the politician who assumes to stand higher up.

You can kill any man or any idea just now by saying “socialism” or “bolshevism,” but the medical profession in Russia is more satisfactorily organized than ever before in the history of that country. And in some ways the physician is on a better basis than in this country.

Say, my boy, take law, for law will put you into politics, but before long it will take politics to put you anywhere in medicine.

The state institutions are not doing any better by their patients than are the private physicians. And some of my people tell of men who are taking big fees for rather bum surgery.

Let us quit trying to make physicians out of nurses. This trained nurse propaganda has been overworked. A good working two-year course is plenty. Even way up here we sometimes come across one who has her thermometer, her hypodermic and, they say, the fillings. I sometimes hear that when we get farther on there will be little use for physicians, the trained nurses and the boards men will be right on hand to care for all the sick in the neighborhood.

Very few are real nurses, few know how to place the patient comfortably. Position means much to a helpless patient. “Give him a shot and let’s go to the dance.”

Lots of stuff is being sold under the Red Cross brand. I think it is now for the physician to let some of the high salaried philanthropists go to work. It is a gigantic graft.

What about traveling opticians going into our schools to test the eyes of our pupils? Don’t we have oculists any more?

And chiros examining throats and noses at the schoolhouses?

When I come to an operation that requires better skill and equipment than mine I send it somewhere else.

When they try to rush me into a job and hint that it ought to be done for thirty cents and I know a good man that can get three hundred dollars out

of it more easily than I can get the thirty cents, I send it to him.

How about the public. Our better class of people do not know the perversity of human nature as the physician finds it.

This talk about putting medical matters before the public will not last long if we tell them the truth the whole truth and nothing but the truth so help me God. How about some of those dirty cases we have cleaned up for some of these same people? I am in favor of a law compelling its publication. No mysticism about me. No Sir, I am willing to tell it all if the court says so. We have had to carry lots of burdensome secrets, and for one, I will willingly divide the worry of it with the public if nothing else, but information for the public will stop the clamor. Good reading, too. But it would be hard upon the state printers. All right, Here's where we force the medical profession to disseminate information for the general public.

Many physicians are being led into the notion that we ought to do more to educate the general public. Now take this from an old man: "The less we tell them about medicines and their uses the better for everybody."

We are cussed every day because some doctor started some one down the road with the dope habit, and now they want to know what they can use as a substitute. We can tell them that no other profession has made the marvellous stride during the past century as has our own. We can tell them of the great advances in medicine and surgery, but who ever tells them the details of his work will injure himself and his audience.

Every day the drug stores are beset by purchasers of poisonous drugs, such as physicians use sparingly and cautiously. Aconite, Digitalis, Belladonna, Strychnine, Ergot, Veratrum, Adrenalin, Thyroid and Orchitis Substance are all called for these days much to the detriment of public health and the annoyance of the physician.

When I see a physician instructing people into the mysteries of pharmacy, materia medica and therapeutics, I feel sorry for him and for the people under his care.

Now regarding fees: People are not ill all the time. It is not an every day upkeep like bread and meat. Physicians are not busy all the time. Enforced idleness on the part of a brick layer in the north means that he must have good wages during the working season. Many good physicians are not making the wages today that they could make in the factory. The yearly expenses of the average physician are on an average twenty-five hundred dollars. That means around eight dollars a day. Some of the best men in the profession have to figure closely to maintain their equipment and keep themselves in readiness for business, whether it comes or not. The physician is barred from many side lines of business and speculation.

The prices in the case you quote seem excessive, but, see here, they had an honest man in one case. Why did they leave him? Again note this: Very likely the men who made the overcharges have a whole lot of people plugging for them night and day. They may call physicians grafters, but a large percentage of the public will get out and boom the grafters; note the big heartedness of the public toward some foreign surgeons who come over here and get praise and fees that few American men get even though they are better and safer operators. Now, Doctor, don't you think part of this waste of effort in teaching the public the mysteries of medicine would better be checked, and an effort made to teach certain people their real relations to the medical profession and to put before them a code of ethics for laymen which code shall be based upon honesty and sincerity?

Septic and Injured Joints, Frederick C. Kidney. Way back to Jan. 1920. Fine. Up-to-date and practical. A classic. Tell him the old Doctor says it is the best ever.

Tell them not to teach disrespect for old men. I have been through that and won out. But they make it hard sledding for some of the modest old fellows. You will all be old if you live to it. Keep the inside of your head right, and old age will be an advantage. Our patients appreciate the advantage of experience, and most of them will pay for it if we ask it. As you grow older raise your prices—your services should be worth more than those of men less experienced. People will concede that if you yourself think so and make it true.

Charity, yes, I do lots of it, but I select my beneficiaries.

When I see a physician standing upon the street holding a woman by the hand and talking to her about another physician's cases, I spot that fellow for a fraud, and no emergency can draw me into consultation with him.

The soft shelled goody-goody doctor is a humbug and a curse to the profession and the public.

The physician who has most the confidence of his patrons, is he who shows his efficiency in his office or the sickroom.

The problems of one physician in one locality are quite different from the problems of another physician in another locality.

Some gray-haired and successful physicians have never had to deal with certain conditions. The people may be different, the so-called leading man, politics, church factions, lots of things may happen to one man in one place that never happen to another man in another place.

And so, about fees. I do not see why a man who gets \$500 for a one-hour operation should plan a fee bill giving a dollar and mileage to a better man for several hours worry in a sick room. Nor why he should want to limit a country physician to a pitiful fee for dressing a mangled hand and amputating a couple of fingers. I have no use for such a fee bill as was planned some time ago for the State Accident Board. The physician who does emergency surgery away from equipment, conveniences and trained helpers, deserves as a rule more praise and more money than he gets.

Constructive criticism—yes, what is it. We should not tear down at the instigation of those whose lines have been cast in pleasant places.

Some folks will tell one story to one doctor and quite another one to another doctor. Same day, too. Some try to find out all they can from Doctor A. for a shilling, from Dr. B. for a quarter and from Dr. C. for a dollar, and then they go to a drug store and fit themselves to treat all the people in their block for thirty cents. When they have queered every case in the neighborhood the doctor is called, and if he gets the truth out of one of them before the funeral, he is some speeder.

I note what you say about examinations. All right, I think, with modifications. One cannot afford to make such examinations for a dollar. Even the downtrodden farmer is learning better than to try to raise a crop that does not pay. Often a physician wastes time and labor and expense only to find that he is framed to tell a whole lot for some one else who will in the end get the money and the praise. Here's where we sling in another demand for medical ethics for the laity. This "dear public" stuff is being overworked. Wait till the dear people get into the hands of the medical politician. Ask your merchant, your banker or your lawyer what he thinks of a portion of the people the physician has to deal with. Educate the public, yes, but in the meantime teach the patient to be as honest with his physician as he is with his banker and his lawyer. Some people will pay a lawyer many dollars to get them out of a scrape, but grudge a physician a few shillings for saving a human life. Follow these good people around for forty years, listen to their tales of woe, suffer from their deceit and hypocrisy and give them your time and your money, and you will quit building walls around the physicians and furnishing lifts to the dear grafters. Probably I love my people as much as any of the selfstyled uplifters love them, but I do not think that the physician should spend years and money trying to fit himself to serve suffering humanity and then be made to cater to the notions of a class that desires to ride in the parlor cars at the expense the man or woman who has invested so much for human needs. Ours is

the only profession that is handicaped by the public for spending time and money to make himself competent to help the distressed.

For one, I do not think very highly of the physician who takes advantage of an invitation to fill a vacancy at some function to tell his audience the faults of the medical fraternity, leaving the impression, of course that he is the only man who believes in superior treatment at lower rates.

The prominent easterner who tells the lay press that nearly seventy per cent of cases sent him are incorrectly diagnosed. Why send him any more? First what he says is not true. Very often these men go out of their way to find something a little different. Which makes me think of a case that I sent to an oculist for examination. He sent her back with a seventeen dollar pair of glasses, a remarkably useless misfit, and the information that he had discovered that the young lady had a retroflexed uterus.

Constructive criticism is always allowable, but it is sometimes only a mask for the most destructive type of detraction.

Doctor, get out into the smaller towns and you will find that a certain careless or heartless element of our fraternity is responsible for much of the present onslaught that is being made upon our profession. They make me think of the hunters and fishermen who sometimes visit this northern country and leave gates open and bars down. It would be well if some physicians could bear in mind the effect of some of their talk upon the profession as a whole. This does not affect me personally. I have no desire to be the competitor of any other physician. The little that I can do will come to me. It is fine to be out of the worry and scramble of the past. Mistakes, yes many of them. Simmered all down, my greatest error was in talking too much, trying to make physicians out of weaklings and incompetents. And, let me say more. I never made a cent talking down a competitor. That is meat and gravy to the man or woman who wants an excuse for beating another man's bill, just exactly as he or she intends to beat your bill.

It is time for the medical man to make a quiet resolution to consider his profession as occupying the highest plane and to do his best to keep it there. America has demonstrated the wonderful efficiency of her medical men, and it is up to the members of our profession to ram that fact down the throats of some of the idle throng who are trying to sidetrack real issues by taking a whack at the physician. For one, I am proud of the record so many of our great American medical men have made. Their greatness has gone around the world. But there are a few incompetents both

within and without the profession that want more for less and with it a public place for some who voted for someone.

Surely, we have honest, clean and intelligent friends among the laity. Such, and there are many of them, who are so clean and respectable that they do not get into touch with another class that needs moral training more than it needs medical information. I refer to those people who want their medical treatment at the expense of the physician and his neighbors.

You are right about the physician as an individual. If our leaders who go out for field work, are not too much influenced by the flattering propaganda of the institutionals, things will come out all right. Really, I think things are about right now. Lay papers are demanding the return of the general practitioner, the old family doctor.

We must remember that men high in national affairs have left their country the worse for their efforts because they knew so little about the rank and file of their constituency, and catered only to the wants of people in the artificial field of life.

As for me, when I am ill, I want, when I get too far along to figure out my case, the privilege of sending for a physician of my own selection. Many of our best people feel that way.

Let every physician who is doing real practice among the average citizenship do some quiet thinking, and when he comes into your councils listen a little while he tells you about medical matters as he finds them in his locality. He may know quite a bit about the situation, perhaps more than some of those whose lives have been spent within the walls of salaried seclusion.

Anything destructive about this? Not so intended, as the Irishman said: "I have friends in both places."

Prognosis favorable. Every man to the front. The rank and file will back their leaders, but let the high contracting parties be sure that they are in full accord with those who are leaving so much to them. Let the case be fully understood and be sure that the diagnosis is not made with the hand upon a hot water bottle.

Keep ahead of the public and of the politician. Beware of secret covenants. An overdose of mysticism may be as bad for the profession as for the laity. Don't forget the stunt that was pulled off in California.

More about that thorough examination matter. Of course you are right, but it seems foolish to make a blood count for every man that has a sliver in his finger. Most men would prefer to have prompt extraction of the sliver, even at the same price. I find patients who are heartily sick of that stuff. Our best patrons appreciate real service. Results are desired, and most patients take more pleasure in the cake itself than in the history of its making.

A man cannot be honest with his work unless he is honest with himself. The fireman ought to know how to extinguish the fire without tearing the house down.

I am not too proud to tell a patient to "take until better," or, "if you find it hurts you, throw it away."

Some day I hope to send you a fine large waste basket. Got a letter from a little girl not long ago, and in describing a pain she spelled it "waist basket."

Old age is not so bad if one only claims the license that goes with it. You perceive that that is not one of my failings.

There is such a thing as getting too far from nature. There may be a psychic vitamin that has to do with human nature and happiness. It is all right for the farmer to change his swine from one lot to another, but the time may come when American citizens will abject to too much interference with the affairs of home life. Freedom under the law, freedom for the patients and for their physicians.

The physician has endured much more from the public than our truly good people know about. As I look back I can see that this was mostly unnecessary, they assumed and we gulped it down. Of course we must be good, but by standing erect we can put a little of that humble spirit over onto the dear spongers where it belongs.

Twenty years ago the public had much less respect for medical men than it has today. It is not so bad after all. Some of those suggestion fellows may be able to make a few simple passes that will cause everything to blow over. Sometimes we forget to count our blessings. Now, for instance, where is that gang of lost manhood fakers? Some may have survived and gone to treating high blood pressure as an entity, some may be working the serum habit, some have gone into petticoat politics, but some have died.

There are many opportunities for medical men to help mankind and to make an impression upon the public. There is more to public welfare work than persecuting the physician.

Jails are full of men this minute, some of them as innocent as you and I. These fellows are kept from communication with friends or lawyers, subjected to torture and grillings that would break down the strongest man on earth. Confessions are doubted in court, yet the inhuman process keeps on. Think of keeping a man without food or sleep for forty-eight hours and subjecting him to the torments of the third degree for that length of time by big, strong, sometimes coarse and unrefined men who come half a dozen at a time in relays to torture and break down a man until he does not know what he is saying. What a great chance for the medical profession to make itself felt.

And these is that physical-analysis stunt. Who

are these high saalried experts? Are they fair samples of the normal? Surely some of them do not look it. How would you like to be shut up in a box stall and quizzed by a group of them. Physicians to the front.

How about things at the county houses, and at the jails? Get there, Doctors. Lots of good waiting for our medical men. Start the good work. Get the public eye upon real wrongs. They have a notion that all the physician is for is for them to stick pins into. Let our medical men and women head off the would-be reformers.

Nothing would put the cheap politician where he belongs as would work of this kind. Start it all over the country. It is our field. Expose the wrongs of the unfortunate.

Doctor, can't you see the great work to be done. The reformer does not know enough to do these things. The physicians can do them and in so doing, make themselves felt.

At a meeting of the ——— medical society last night the subject of public charities was discussed. It was stated that many of our cleanest and best people who have met with adversity are suffering today, while the dirty and real begging class is helped without stint. It is claimed that a clean American citizens of good habits will be passed over by our organized charity workers, who are too prone to associate dirt and crime with relief work. The modesty of the pride of the truly worthy often escapes the eye of the so-called charity worker.

At a meeting of ——— medical society last week the condition of our county jail was taken up for discussion. It is claimed that conditions are very unsanitary and that many prisoners who may be perfectly innocent have been waiting for months for their cases to come up.

The physicians of ——— at their annual meeting yesterday discussed the status of the so-called psycho-analysis work. Many seemed to think that some of the so-called experts should themselves be subjected to an examination by a normal jury of human beings before being granted their appointments.

A change seems to have come over the medical profession. Formerly its members were too modest to take much interest in public affairs, but today ———.

And here comes a sick baby: "Doctor, we have been doing our best for it, we have been giving it a teaspoonful of orange juice twice a day ever since it was born and we read all the magazines and booklets we can get that tell about the care of babies, but it gets weaker all the time."

Poor, little puny creature. We will stop that orange juice at once. We will give it some good sweet milk, right warm from the cow, and we will give it a good crisp fried pork rind to suck every day and betcher life baby will get well. Think of

the people that have prostituted themselves by writing for the citrus trust. A teaspoonful of green orange juice, twice a day would knock me out in a week. God would have grown oranges in Greenland, had the babies needed them. Strange what fads we fall for.

Many of the consumptives that come up here have been told that they must take more exercise, must get right out and rough it. They get worse. Most of them need rest.

Many of the public health bulletins say that medical treatment is useless in tuberculosis cases. My patients do not believe that. There is much to be done by medicines for these sufferers, and many of them will not recover without it. Can not some way be devised to call those fellows off? And the state pays for it.

And, say it aloud, the persistent use of tuberculin in these cases is a fraud. It sickens the public and savers of graft. I have had patients who at the beginning begged me not to torture them with tuberculin. They said it had done them no good, and some some thought it made them worse. In fact, I doubt if it is wise to place too much reliance in it as a test. I read much literature upon the subject, and one does not have to read between the lines to find more damage than good from its prolonged use. Tuberculosis may go back to the man who gives real medicine the old fashioned way.

There are those who become so interested in a fad that they forget the poor victim who wants real help and should have it. Such nonsense is not doing much to popularize medicine.

"Doctor, you are wanted right off down to K's. Their baby is sick and they want you just as soon as you can get there." "Well, I can't come today. Too busy." And then the whole burg sets up a holler. "The law ought to make him go to see that poor sick child."

Two years ago same family called me. Rush call, child dying. Went and at a sacrifice. Found child not ill at all. Told them so. Started to come away. "Say, Doctor, come into the other room a minute. My wife wants to see you." Trapped. In that room was an ex-sanguinated woman. Across the floor was a stream of partly clotted blood. Ten days before that woman had been away visiting a most notorious woman. Here was a difficult and trying piece of work. I saved that woman's life. Never got a cent. This time I saw the aforesaid such child playing in the street.

Now if the public is suffering for publicity or from the want of it, why not have such cases published. Some surprises, eh? Nobody ever shoots any of that "mysticism" stuff into me and gets away with it. I wish some honest, sincere man of the church knew of the traps that are set every day for physicians.

Another one, please:

"Doctor, my wife has eaten something that has affected her stomach. She has pain and vomits a whole lot." "Is she pregnant?" "Oh, no, she can't be. She is always regular." All right. I go to the phone and telephone for a few simple powders and tell my caller to go and get them. Seven days later. "Doctor, that medicine you had me get for my wife has started her flowing, and she is very sick, we are afraid she is dying. We want you to come out at once. I promptly informed him that the medicine I prescribed had nothing to do with the flowing and went out. Found patient yellow, shrunken and almost pulseless. The odor of the room was diagnostic. It was some job. She is alive and well, but the man still owes me. The very day that man got those little bismuth powders from me she went upon a visit to the same woman as the other woman visited. These women are all church members and engaged in public welfare work. Suppose I had not any way of proving what I gave her husband for her. Such cases as this come to my mind when I hear some sweet sister saying that medical work should be wide open to the public. That is the surest antidote to that mysticism stuff that I know of. Let's try it.

The better class know very little about the relations of some of their neighbors to the physician.

I still come across physicians who lend medical books and journals to the public. It is a costly mistake.

I never believe any of the charges in the papers against a physician until the evidence is all in. Many a good man has been ruined by the lay trick of getting a little medicine from a doctor or two and then going to some one outside for criminal work with the understanding that in case of trouble the case can be trailed to the man who first saw it.

"Educate the public?" What a lot of tricks some of them already know. How long will the honest political appointee get on with some people?

It is high time for the members of our profession to stop pleading guilty of mysticism and all such nonsense.

Now about old folks. I am past that. It don't affect me. But I believe that they are often hurried off by their relatives and unsuspicious physicians. "She can't live long, can she Doctor?" "Oh, yes, I think she ought to get over this and live several years yet." "Oh, no, Doctor, she is too old." Next day the poorest or meanest doctor in the county is called to the case, you are dropped, and the poor old creature dies. I remember several such instances in the long ago. Or, Elizabeth is summer visiting her grandparents. The old man is ninety and as hearty as some men at fifty. He drinks a cup of coffee every morning, eats a piece

of grandma's good pie every noon and smokes a pipeful of tobacco after each meal. Elizabeth decides that this is all wrong and the old man's luxuries now necessities, are taken away from him and in six weeks grandma is left alone with no one to drink her coffee nor to eat her pie. After a few weeks of tyranny and loneliness, she follows him, and Elizabeth goes out teaching American mothers how to raise babies.

This old maid is smart and up-to-date. She was at St. Louis. Thinks the world is going to get along on laboratory work and synthetic sawdust. I appreciate lots of our great discoveries. But, when she tells me their mortality rates in pneumonia, it puzzles me. Why, sir, they lose more in a hundred cases twice over than I ever lost in all my life. Surely, if I had their facilities and advantages, I would be ashamed of such results. To-day in some of my work I have best results when I go back to the ways of twenty years ago. If we know a simple remedy why delay the patient and prolong his misery by looking wise and trying to demonstrate that we are pseudo scientific?

And yet another: A real friend of mine is a specialist in one of our largest cities. He is up-to-date and has a national reputation in his line. A few years ago he had an eruption upon his forehead. He consulted several excellent dermatologists and was treated by them with almost every variety of serums and vaccines from goat glands to toad juice. Got worse. Told me about it. Asked him to go and look in the mirror. Asked him if he did not practice in the south one time. Asked him if he did not often have such cases to treat. Asked him if they did not all recover. Then asked him what he used to do for such cases. He had forgotten. Told him. He said, yes, sir, and sent for it at once. In three days his face was well.

We must do things. The honest man will try to do the best thing first no matter how simple. And he will not tell the patient how he does it either. Most men will appreciate up-to-date efficiency. If you can mend my car without taking it all apart you are my man. But if you tell some of them what a simple matter it was they will hand you a cigar and drive away.

Man comes to me in great distress and anxiety. Stomach trouble. Been to various hospitals, institutions and sanatoriums, been treated by several of our high-up experts and specialists. Really, he had a good list and they were all men of good standing. The stunts they had put him through would have killed a mule. Me, too Pete. I would not take all of those degrees for ten thousand dollars. Me a poor man, too. He said he was getting worse. Too much for me. If all those men had failed, I would not be in the running. But in order to be decent I had to do something. So I gave him four ounces of ——— and told him to try

that and call again. Teaspoonful before each attempted meal. Double dose if it helped him. No charge, I am afraid your case is too much for me, and you will need your money for better men. In six days he was back looking bright and cheerful. Happy and looked ten years younger. Had not felt so well in years. Wanted some more medicine. Got it too. Handed me a ten dollar bill and would take no change. Yet I, like many others, have been getting too proud of my scientific fog to use pepsins.

A little less time in showing off our equipment and a little more instant relief. This is the day of ready efficiency in other lines.

I have bought my last great big book. The small manual or hand book tells me things I ought to have known years ago. Things that I will never know if I waste my time reading about the color of Harvey's frogs and the price he paid the boys for catching them.

Don't take this at all seriously. Only an old cripple living with his books, his chickens and his pigs, way back in the Jack Pines.

Editorial Comments

The Bulletin of the American Medical Association is being sent to the officers of the State Society and to the president and secretary of every County Society. This Bulletin is the open forum of our national association for the discussion of organizational problems. It is also to serve the purpose of keeping in closer contact with the component units of our parent body. We urge that those who receive a copy of this publication will carefully study its contents. It will give you many helpful suggestions that will enable you to further the interests and work of your local society. Its editor will welcome your contributions.

It is with deep regret that we are compelled to record in this issue the death of Dr. Ernest Keys Cullen of Detroit. Just reaching the zenith of his career, having won a host of professional friends, contributing his share to the elevation of scientific medicine, keenly interested in the hospitals with which he served and eager to aid his fellow men, his death creates a great vacancy in our state medical circles.

We are pleased to record the receipt of \$426 from the Committee on Arrangements of our Flint meeting. This amount represents the net profits after paying all the local expenses. But more than that, it represents a splendid piece of organized effort on the part of the Committee on Exhibits. In addition to this amount the Flint members, by personal contributions, defrayed all the entertain-

ment expenses. Again we state they were royal, efficient hosts.

Primaries are at hand. Have you interviewed the candidates from your locality? Have you obtained their views and opinions upon medical and health legislation? We suggest a caucus of the doctors of your county and a wholesome exhibition of influential interest in the forthcoming elections.

The Propaganda Department of the Journal of the American Medical Association has just issued three instructive pamphlets on "Female Weakness Cures," "The Nostrum and the Public Health," "Obesity Cures" and "Epilepsy, Cures and Treatment." Their price is 15 cents per copy. They supply reliable information and impart the information every doctor should have so that he can enlighten his patients in regard to the methods fakers employ. Send for a copy for your reception room.

President Dodge has appointed the following State Committee at the request of the Council on Medical Education and Hospitals of the A. M. A.: E. G. Eggelston, chairman, Battle Creek; R. Balch, Kalamazoo; Ward Seeley, Detroit; H. S. Collisi, Grand Rapids; Mathew Kollig, Saginaw. This committee will concern itself with the standardization of Michigan hospitals, under the direction of the National Council.

Correspondence

The Editor of the Journal of the Michigan State Medical Society:

In discussing the question, "Are we fair to our patients," the doctor who charged \$125 plus nurse and hospital charges for a tonsillectomy was unfair unless he gave the patient a chance to have the work done for less. He was very unfair if he tried to make the patient believe he could not get good operation for less than \$125 fee. The specialist is very unfair who stands before a medical society and through the members of that society conveys to the people the impression that a tonsillectomy is a major operation and should never be done outside of a hospital and the next day does five tonsillectomies in 45 minutes and never sees the patient afterward.

One county sent 48 tonsil cases to Ann Arbor in one year at an average cost of about \$50. Those cases could have been done at home at a cost of \$25 each and not been away from home over night. Somebody was very unfair with that county. It is a fact that tonsil work has become such a graft that everybody from the Gynecologist to the Osteopath is doing it.

A patient came into a doctor's hands with a clinical picture of duodenal ulcer. Serial X-ray plates

confirmed the diagnosis and the need for operation. He was a poor man and went to the state hospital. The staff at the hospital said he did not have duodenal ulcer, kept him two weeks, ran two X-ray serials then agreed he did have duodenal ulcer, and operation confirmed the findings. Now, the work, done at home, for this man was worthless to him or the work done by the hospital staff was useless and a needless expense to the patient. A child was taken from this town to a group clinic where the diagnosis made at home was confirmed, child was returned with a bad prognosis, with no advice as to treatment, under medical care at home the child is recovering, but the group clinic has \$100 of the patients money, for services that did not aid in the treatment.

It is such experiences by the people that are driving us into State Medicine, for regardless of what Dr. Burton or Dean Cabot may say, we have State Medicine, and they, with the doctor's help, are driving us into it. Charging \$125 for a tonsillectomy is made on the same basis that \$5 was charged for 5000 units of antitoxin which the people now get for 50 cents.

Further, the constant raising of the requirement to practice medicine, advised by such men as Burton and Cabot, is limiting the number of doctors and raising the price of the service rendered, making it impossible to obtain medical service when needed, and impossible to pay the price where the doctor is available, thus forcing the people to appeal to the state for help. It was this condition, more than anything else that brought State Medicine in England.

Raising the requirements to practice, forcing the hospitals into the large centres and limiting the number of available nurses by raising the requirements of the nurse, does not benefit the people in any way and was intended for only one purpose, to limit competition and raise the price of service to the people.

I do not see why the doctor has a right to charge the transportation all it will bear any more than the coal dealer, and we are hoping the coal man is headed for the penitentiary.

Fraternally,

C. D. PULLEN, M. D.

The Editor of the Journal of the Michigan State Medical Society:

Beginning July 1, 1922, the Bureau of Laboratories of the Michigan Department of Health will add to its diagnostic procedures a new test for syphilis, which will be reported to the physicians of Michigan parallel with the Wassermann reaction. This test has been evolved in these laboratories by R. L. Kahn, immunologist, and is based on the principle of precipitation, and not complement fixation, the basis of the Wassermann test.

Judging from experience gained with this test in approximately 15,000 blood examinations, carried out in the laboratories of the Michigan Department

of Health, we believe it to be a valuable check on the Wassermann, and in some cases, more sensitive than the older test. Drs. H. L. Keim and Udo J. Wile, of the University of Michigan, presented a paper on this test ("The Kahn Precipitation Test in the Diagnosis of Syphilis") before the recent A. M. A. meeting at St. Louis, and spoke highly of its clinical value. Dr. Ide, at the State Psychopathic Hospital, Ann Arbor, has also been obtaining good results with it. We therefore feel that this test will make a valuable addition to laboratory aids in diagnosis of syphilis.

A plus-sign system will be employed in reporting this test as in the case of the Wassermann.

About 3 cc. of blood will be ample for both the Wassermann and the Kahn (precipitation) test.

Yours very truly,

R. M. OLIN, M. D.,

Collaborating Epidemiologist, U. S. P. H. S.

The Editor of the Journal of the Michigan State Medical Society:

The enclosed lines, I send you for publication in the State Journal.

They tell the experience of one who endured all that is related in the lines, and I am sure that some of my brother medical men, will recognize the case and join with me in honoring the keen, intellect that so playfully has told a wonderful truth.

It is the tale of one, who has been *Hors de Combat* for some years; who has been passed from one to another, but through it all has had the steadfast support of her own family physician, who has ever borne the brunt of the trouble and has been the only true counselor she has had.

I honor that family doctor of that type that is ever becoming more rare—a man of Integrity, Truthfulness and Honesty.

He is the one man who has told the truth, and he deserves the thanks of his conferees. This man is a Physician in the great metropolis of the state.

Yours very truly,

T. F. HEAVENRICH, M. D.

A LAMENT FROM ONE IN BONDAGE

The Medical Profession is
A most elusive bird;
It takes a Sherlock Holmes or so
To catch their fleeting word.

I sit around from day to day
Through months and into years,
And wrestle with a multitude
Of qualms and ills and fears.

While my medical advisers
Are trying to decide
If they'll shoot a hypodermic,
Rub some more, or let me ride.

"How long, oh Lord; how long," she cries
"I must be out of luck?"

"The time won't come," the Walrus cried,
 "Until they pass the buck."

So Doctor A, sees Doctor B,
 But Doctor C's away,
 Or injured in an accident—
 Another long delay.

"Why do they linger now," she cries,
 "Their verdict they can't duck;
 "They're hunting up a specialist
 "So they can pass the buck."

I've flown to Minnesota—
 To Cape Cod—home again,
 Collecting the opinions
 Of a host of skillful men.

Be it Clinic or Physician,
 It is always nip or tuck,
 As to who will slay my Blue Bird;
 For they always pass the buck.

So when this vale of tears is passed,
 And I stand at the Gate,
 Will Peter keep me waiting,
 While he juggles with my fate?

Or push it off on Michael,
 So he won't run amuck,
 Oh, Peter, even Peter,
 Will you try to pass the buck?

L'Envoi.

I've made this resolution
 That when I have crossed the bar—
 If Peter keeps me waiting—
 I will not venture far * * *
 Upon the road to Paradise,
 Or listen for his bell;
 When Peter come to look for me,
 He'll find I've gone to H—.

Deaths

Dr. William G. Kanter was born in Detroit in 1878 and died in the city of his birth, July 18, 1922. He received the degree of A. B. from Williams College in 1901 and M. D. from the Detroit College of Medicine and Surgery in 1906. He was city physician for several years after his graduation and was an Elk. Dr. Kanter had long been crippled by a serious illness. He leaves a wife and no children.

Dr. Ernest K. Cullen was born in 1878 and died in Detroit, July 5, 1922, following an illness of 48 hours (gastric hemorrhages). He received his degree of M. B. from the medical faculty of the University of Toronto in 1903. He entered the gynecological service in Johns Hopkins Hospital and became chief resident gynecologist. He went overseas with the Harper Hospital unit in the world war. At the time of his death, he was professor of gynecology in the Detroit College of Medicine and Surgery, attending gynecologist to Harper

Hospital and consulting gynecologist to St. Mary's Hospital, Detroit. He was a member of the American College of Surgeons, the Detroit Surgical Society, the Wayne County Medical Society, the Michigan State Medical Society and the American Medical Association. The doctor is survived by his widow, one child and his brother, Dr. T. S. Cullen of Baltimore, Md.

Dr. William Harper of Byron, Mich., was born in 1842 and died June 4, 1922. He graduated from Rush Medical College, Chicago, in 1866.

Dr. William F. Bullard of Berrien Springs, Mich., was born in 1848 and died May 18, 1922, after a long illness. He graduated from the Medical College of Indiana, Indianapolis, in 1880.

Dr. O. J. R. Hanna was born in 1847 and died in Jackson, Mich., June 2, 1922. He was licensed in Michigan in 1900.

Dr. Winifred Heston was born in 1872 and died in East Jordan. She graduated from the Laura Memorial Woman's Medical College, Cincinnati, in 1901. She spent much of her time since graduation in India. The doctor died from an overdose of opiate, taken accidentally, following a long illness.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer**, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Dr. Warren Babcock left Detroit July 15, 1922, for a visit in Europe.

Dr. Walter P. Manton of Detroit left July 1, 1922, for a six months' visit in California.

Dr. and Ralph H. Pine of Detroit announced the birth of a daughter, Eleanore Agnes, June 13, 1922.

D. Walter B. James of New York received the Honorary Degree of Doctor of Laws from Harvard University.

Dr. Fred P. Currier has located in Grand Rapids and announces that he will limit his practice to Neurology.

Dr. Walter W. Palmer of New York received the Honorary Degree of Doctor of Science from Amherst College.

Dr. Harvey Cushing of Boston has been elected an Honorary Fellow of the Royal College of Surgeons of England.

Dr. B. U. Estabrook assumed the duties of Deputy Commissioner of the Detroit Department of Health, July 1, 1922.

Mrs. Guy L. Kiefer of Detroit opened her cottage at Mackinaw Point, July 6, 1922. Dr. Kiefer joined her the first of August.

Dr. Walter L. Bierring of Des Moines has been elected an Honorary member of the Royal College of Physicians, Edinburgh.

At the annual meeting of the American Therapeutic Association, Dr. Charles G. Jennings of Detroit was elected president.

Dr. and Mrs. Carl Bonning and Miss Bertha Bonning of Detroit are spending the summer at Portage Point Inn, Onekema, Mich.

Dr. George A. Parker has resigned as superintendent of Butterworth hospital, Grand Rapids. His successor has not been named.

Mr. James S. Riley of Los Angeles has recently given \$30,000 for a new hospital at Albion, Mich., in the memory of his grandfather.

Dr. F. C. Warnshuis of Grand Rapids received June, 1922, the Honorary Degree of Doctor of Science from Hope College, Holland, Mich.

Dr. Haven Emerson has recently been appointed full-time Professor of the Department of Public Health Administration at Columbia University.

Dr. J. M. Withrow of Cincinnati received the honorary degree of Doctor of Laws at the 83rd Annual Commencement of Miami University, Ohio.

The Wayne County Medical Society recently received a picture of the late Dr. T. A. McGraw from his family. It will be hung in the Council room.

Mrs. B. D. Harison of Detroit opened her cottage at Steers Island, Sault Ste. Marie, the middle of June. Dr. Harison joined her the latter part of July.

Dr. Charles H. Frazier has been appointed the John R. Barton Professor of Surgery in the University of Pennsylvania. He succeeds Dr. John B. Deaver.

Dr. Randolph Winslow of Baltimore has resigned as Professor of Surgery in the University of Maryland. The doctor was associated with this school for 49 years.

About 75 volumes from the library of the late

Dr. Charles Douglas has been given to the Wayne County Medical Society by his daughter, Miss Douglas.

Dr. U. V. Portmann of Grand Rapids, has accepted an appointment in the X-ray department of the Cleveland (Ohio) Clinic and assumed his new duties July 15th.

Dr. John L. Heffren has resigned as Dean of the Syracuse University School of Medicine. He has been on the teaching staff for 40 years. For the past 15 years he has been dean.

The 25th reunion of the Class of 1897 of the Detroit College of Medicine and Surgery was held Wednesday evening, June 14, 1922 at the Detroit Athletic club. Twenty-seven were present.

Thirty-nine students took the primary and 44 (36 medical, 1 drugless and 7 chiropodits) the final examinations, given by the Michigan State Board of Registration in Medicine at Detroit, June 19, 20, 21, 1922.

Dr. George Kamperman read a paper on "The Pathology of the Female Genital Tract After Prolonged Local Treatment of Gonorrhoea," (illustrated by lantern slides,) before the Highland Park Physicians' Club, June 1, 1922.

Dr. Harold L. Amess of New York received the Honorary Degree of Doctor of Laws from George Washington University, June 7, 1922. He has been recently appointed Associate Professor of Medicine in the Johns Hopkins University.

Dr. Dale M. King, Neurologist, Grace Hospital, Detroit, was successful in the Ontario Medical Council's licensing examination and as a result has been admitted to membership in the College of Physicians and Surgeons of Ontario.

Dr. and Mrs. Frank N. Wilson gave a reception in honor of their guests, Sir Thomas and Lady Lewis of London, England, June 18, 1922, at the Michigan Union, Ann Arbor. Dr. W. H. Morley and Dr. W. J. Wilson of Detroit were present.

Dr. John A. Wessinger, has recently been re-appointed Health Officer of Ann Arbor, for a term of three years. The doctor is thus entering upon his fifth consecutive term of service, the several appointments coming from five different mayors.

On June 26, 1922, the Wayne County Medical Society had 1,038 paid up active members, 137 delinquent active members, 44 paid up resident associate members, 7 delinquent resident associate members, 24 paid up non-resident associate mem-

bers, and 3 delinquent non-resident associate members.

Dr. M. Lampert, formerly of the University of Illinois, ex-interne of Cook County Hospital, associate on the faculty of the University of Illinois, Rhea Scholarship, membership of the Alpha, Omega Alpha, and for the past 16 months located in Cadillac, has located in Grand Rapids. He will limit his practice to Internal Medicine.

On the morning of July 4th, Dr. C. T. Southworth of Monroe, was admitted to Harper Hospital, Detroit, with a ruptured gall-bladder. Immediate drainage was instituted. Last reports are that he is convalescing and was to return home the last of July. His many friends will be pleased to learn of his recovery from so serious a condition.

The Western Michigan Travel club met in Big Rapids on July 19th, as the guests of Doctors Dodge and Lynch. This meeting was a purely social one, taking the form of a field day at the Meceola Golf club. A blind bogey tournament was played and a golf club was the prize to the winner. Our State President did not carry off the honor, proving our statement in the last issue that his only failure was golf.

Dr. Homer T. Clay has located in Grand Rapids and will limit his work to Pediatrics. The doctor graduated from the University of Missouri and Washington University in 1919, receiving his A. B. and M. D. degrees. He served an internship of one year in the St. Louis City Hospital, an internship of 18 months in the Chicago Children's Memorial Hospital and for the past year he has been doing research work in the Chicago Institute for Juvenile Research.

The Detroit College of Medicine and Surgery held its Commencement exercises Friday, June 14, in the Knights of Columbus hall, Detroit. The invocation was given by the Rev. Mr. Marsh of Northville, whose son was a member of the graduating class. Dr. Guy L. Kiefer gave a talk to the seniors for the faculty. Dr. A. P. Biddle for the Board of Education administered the Hippocratic Oath. Mr. Devine, president of the Board of Education, presented the diplomas to the graduating class. Dr. Marshall delivered the Valedictory Address for the seniors. Dr. Dodson, Dean of the Medical Department of the University of Chicago, spoke on "The Relation of the Doctor to the Public."

County Society News

SANILAC COUNTY

A meeting of the Sanilac County Medical Society was held at Brown City on June 27. A talk was

given by Dr. B. E. Brush of Port Huron on "Pain as Symptom in Acute Abdominal Troubles." Paper on "Local Anesthesia in Major Surgery" was given by Dr. J. C. Webster of Marlette.

H. H. LEARMONT,
Secretary.

GENESEE COUNTY

The Genesee County Medical Society met on Wednesday, June 21, President Miner presiding. Arrangements were made to hold our annual picnic on Wednesday, Aug. 16. A ball game, dinner and dance will be the features of the occasion. Major Young of Saginaw spoke in the interest of recruiting officers for the Medical Corps, Organized Reserves, United States Army, and made a good plea for preparedness. Dr. W. J. V. Deacon of Lansing spoke on the reporting of communicable diseases and told us what the State Board of Health was trying to accomplish in the control of venereal diseases.

W. H. MARSHALL,
Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale County Medical Society was held at the high school building Tuesday evening, July 11.

In the absence of both the president and vice president, Dr. E. A. Martindale was made president pro tem.

Minutes of last meeting read and approved.

Dr. Louis W. Toles of Lansing then gave a very interesting and instructive address on "Diseased Conditions of the Nose and Throat, Including the Sinuses."

The speaker called attention especially to differentiation of diseased tonsils, laying down the general law that tonsils yielding on suction (the technique of which he described) streptococci and staphylococci, will not get well and should be extirpated. Otherwise, they may be preserved if not too much hypertrophied. He also emphasized the principal importance of early paracusis in disease of the middle ear, meaning by this, a free incision of the tympanum and not a mere puncture.

He also called attention to the important role played by diseased tonsils, teeth sinuses and chronic obstructions in the nasal passages in causing focal infections in different parts of the body.

The doctor's address was discussed by Dr. John of Hillsdale and Bell of Reading, followed by general discussion and questions.

The address was highly appreciated by all, and a vote of thanks was tendered to Dr. Toles at its close.

The next speaker, Dr. Barnes of Waldron, being absent, the society then listened to a brief report of the proceedings of the State Society at Flint, from the delegate, Dr. Fenton. This was confined almost entirely to the business part of that society and the House of Delegates, as the valuable scien-

tific papers and addresses will be better and more fully presented in The Journal.

Under the head of unfinished business the proposal to contribute to the legislative and educational fund of the State Society, which was tabled at the last meeting, was taken from the table and after discussion, it was voted to instruct the secretary to ask each member of the society to contribute \$2 to this fund.

All the members present then paid in this assessment. Dr. Toles contributed valuable information in regard to this work by the state society.

Under the head of new business it was moved by Dr. Bell and supported by Dr. Miller that the president pro tem appoint a committee of three to take immediate action with the prosecuting attorney in enforcing the laws governing medical practice in the county. Carried.

The committee so appointed was Dr. W. H. Sawyer, Dr. T. H. E. Bell and Dr. O. G. McFarland.

It was then moved and supported that the president on his return home be requested to appoint without delay the regular committees on program, legislation and entertainment. Carried.

Adjourned.

D. W. FENTON,
Secretary-Treasurer.

MAIMONIDES MEDICAL SOCIETY

At the annual meeting of the Maimonides Medical Society, June 13, 1922, for the next season, Dr. M. B. Kay was elected president; Dr. L. B. Cowen, vice president; Dr. A. Shoenfield, secretary, and Dr. R. L. Cowen, treasurer. Dr. N. E. Aronstam again heads the editorial board.

Book Reviews

APPLIED CHEMISTRY. An Elementary Text Book for Secondary Schools. Fredus N. Peters, Ph. D., Instructor in Chemistry in Central High school, Kansas City, Mo.; More Recently Vice-Principal; Author of "Chemistry for Nurses," etc. 461 pages, 3½x5½, with 72 illustrations. Price, silk cloth binding, \$3.50.

This is an elementary text on general chemistry for use in secondary schools and one which is written in popular style, but this, at the same time, does not detract from its scientific value. The book is well illustrated and contains special reference tables and a complete glossary. All the facts are presented in a very readable form and on this account is more interesting than the usual "cut and dried" chemistry text-book.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY AT ST. LOUIS

The thirty-fifth annual meeting of this association will be held in St. Joseph, under the presidency of Dr. Paul E. Gardner, on September 22-

22. The Buchanan County Medical Society is preparing for a series of clinics to be held at the various hospitals of St. Joseph on Tuesday and Wednesday, preceding the meeting, September 19-20. St. Joseph has a proverbial reputation for warm-heated hospitality, and the arrangement committee, under the leadership of Dr. Floyd H. Spencer, announces that the "tang" of his city for entertainment and good fellowship will be fully sustained upon this occasion. The famous hotel Robidoux will be headquarters, and all sessions will be held in the beautiful Crystal Room. The

One of the features of the second day will be a exhibits will be on the same floor. symposium on the "Early Recognition of Cancer" participated in by a number of men who have won national distinction in research work and clinical investigation. On Thursday evening at 7:30 o'clock, Dr. C. W. Hopkins, chief surgeon of the C. & N. W. railway, will give an illustrated lecture on "Injuries and Surgery of the Spine," sent a paper on "Hypertension in Cardio-Vascular and Dr. N. M. Keith, of the Mayo Clinic, will pre-Disease," illustrated by lantern slides. Following the evening session will be a smoker and other entertainments. Members are urged to bring their ladies, who will be entertained while the fellows are attending the sessions.

Reservations of rooms at the Robidoux should be made early to avoid disappointment. The medical profession of adjoining states cordially invited to attend the clinics whether or not they are members of the society.

"Causes of Duodenal Ulcer," Dr. E. P. Sloan, The preliminary program follows: president Illinois State Medical Society, Bloomington, Ill.

"Toxic Factors in Intestinal Obstruction," Dr. T. G. Orr, Kansas City.

"Convulsions in Children," S. Grover Burnett, Kansas City, Mo.

"The Phosphatic Index," Dr. J. Henry Dowd, Buffalo, New York.

"Some Phases of the Relation of Dental Focal Injections and Systemic Diseases," (lantern slides), Dr. Russell L. Haden, Kansas City, Mo.

"Renal Function in Prostatic Hypertrophy," Dr. Raymond L. Latchem, Sioux City, Iowa.

Dr. Leigh F. Watson, Chicago, subject to be announced.

"Myoclonic Type of Epidemic Encephalitis," Dr. Lloyd James Thompson, St. Joseph.

Dr. Lynne B. Greene, Kansas City, subject to be announced.

"Cancer: Its Early Recognition," a symposium.

(a) Address, Dr. Fred J. Taussig, St. Louis, Mo., "How Far Can the Cancer Death Rate Be Decreased by Educating the Profession and the Laity."

(b) "Superficial Cancers," Dr. E. H. Skinner, Kansas City, Mo.

(c) "Gastro-Intestinal Cancers," Dr. John M. Bell, St. Joseph, Mo.

(d) "Cancer of the Breast," Dr. Donald Macrea, Council Bluffs, Iowa.

(e) "Cancer of the Uterus," Dr. Palmer Findley, Omaha, Neb.

Complete program will be issued September 1; if you do not receive a copy notify the secretary, Dr. Charles Wood Fassett, Kansas City, Mo.

The Journal

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Original Articles

THE PATHOLOGY OF HYPERTHYROIDISM*

LOUIS B. WILSON, M. D.
ROCHESTER, MINN.

Fifteen years ago the use of the term hyperthyroidism to indicate Graves' disease or exophthalmic goiter would have been considered begging the question. Indeed, there are even yet certain physicians, particularly neurologists, who hesitate to accept the thyroid as the primary cause of the symptoms of exophthalmic goiter. But the studies of the internist, the surgeon, the pathologist, the physiologist, and the chemist have now proceeded to such a degree, and on the whole are in such harmony, that it would appear we may safely use the term hyperthyroidism as indicating that the over-activity of the thyroid is at least the direct antecedent, that is the immediate cause of the symptoms of exophthalmic goiter, even if the thyroid itself may be later shown to be only an intermediate link between the symptoms and the primary cause originating in some other organ.

The internist has more definitely differentiated symptomatic goiter from conditions simulating it. The surgeon has demonstrated that the removal of a portion of the thyroid in exophthalmic goiter relieves the symptoms. The pathologist has shown that the morphology of the thyroid in exophthalmic goiter is that of an overfunctioning organ. The physiologist has shown that by causing the thyroid to overfunction some of the symptoms of exophthalmic goiter may be produced in experimental animals. And the chemist has shown that thyroxin, the essential part of the secretion of the thyroid, will produce experimentally the essential symptoms of exophthalmic goiter.

These five groups of workers have approached the question from different viewpoints, but all have discovered data which point

to the same conclusion, namely that a certain syndrome consisting essentially of markedly increased basal metabolism, lowered threshold of the nervous system, tachycardia, certain other circulatory disturbances, and an enlarged thyroid, accompanied usually by ocular symptoms, may all be explained directly if not primarily by hyperthyroidism. I assume that the present symposium is for the purpose of restating briefly from the different viewpoints the facts and hypotheses of each.

PATHOLOGIST'S DIFFICULTIES

From the pathologic viewpoint we have to consider first the morphologic evidence of overfunction in the thyroid itself. The greatest difficulty of the pathologist in attempting to associate the histologic conditions in the thyroid with clinical phenomena has been due to the failure of clinicians readily to come to any settled agreement concerning the grouping of various clinical syndromes. On the pathologic side difficulty has also arisen from the fact that aside from tumors and inflammations most of the changes met with in the thyroid merely represent varying degrees of progressive or retrogressive stages in physiologic phenomena and are therefore difficult to evaluate. Pathologists for a long time labored under the difficulty of not having a sufficiently large number of thyroids from accurately diagnosed cases to compare with each other and to study in relation to evidence of exacerbation or reduction of the physiologic processes of the patients from which they came. In making such a study the pathologist must not be satisfied with studying sections from one or two blocks of tissue. He must remember that each follicle of the thyroid is a unit in itself and that his estimate of the working capacity of the entire gland must be based on a study of a sufficiently large number of units to enable him to form a conception of what the gland as a whole is doing. Of course, estimates based on such studies cannot be accurate in a hundred per cent of the cases. They are, however, more accurate than one might be lead to suppose; this is due to the apparently large factor of safety in the human body, that is, its ability apparently to get along with a relatively

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small output of thyroxin and to withstand a relatively large output without in either case showing untoward symptoms. It is only when excessive degrees of physiologic changes occur that the body rapidly responds. In the presence of excessive degrees of physiologic depression or exacerbation, theoretically, there should always be corresponding morphologic changes in the gland. If there is a relatively smaller increase of output extending over a long period, especially in glands in which this relatively small increase is associated with the formation of new follicles in adenomas or other nodular types of goiter, the histologic evidence of increased function may be much more difficult to determine. However, notwithstanding all the difficulties arising from inaccuracies of clinical diagnoses, failure of the surgeon accurately to determine the post-operative history of his patients, failure of the pathologist in cases in which operation is performed to get all of the thyroid for examination, difficulty of getting normal thyroids and thyroids from cretins and myxedematous patients for comparison, and the enormous labor of examining several sections from each of a large number of areas in each of a large number of thyroids to make his experience worth while; yet it is true that the experienced pathologist can demonstrate in properly fixed and stained tissues morphologic evidence of over-function of the thyroid in 90 to 95 per cent of all patients in whom there is sufficient evidence in the history and in results of treatment to warrant a diagnosis of hyperthyroidism. Most of the five or more per cent of error: I believe must be laid to inaccuracy of judgment on the part of clinical, surgeon and pathologist. It is barely possible that a small fraction of one per cent in this margin of error may be due to some unexplained intercurrent factor.

The morphologic changes in the thyroid indicating its increased activity are in brief, hyperemia, parenchymal cell hypertrophy, parenchymal cell hyperplasia, and the formation of new follicles.

HYPEREMIA

The thyroid of exophthalmic goiter is hyperemic. Grossly and histologically there is indisputable evidence of the high vascularity of the gland. It should be noted, however, that this increase in vascularity is not due to increase in the size of a few large vessels, but to a diffuse general increase in the size of the smaller arterioles and capillaries as well as of the larger arteries and veins. Indeed, in many intensely hyperplastic thyroids the larger arteries in the interior of the gland are certainly not increased in diameter in proportion to the increase in diameter of the gland. The

smaller arterioles and capillaries, however, are swollen and engorged with blood.

HYPERTROPHY

Hypertrophy of the parenchymal cells, that is, an increase in size of the individual cells, is always present in hyperthyroidism, though it is not always easily demonstrated in adenomatous conditions. Distinction must be made between true cell hypertrophy and cellular edema. Edematous thyroid parenchymal cells are commonly found either in the lax walls of soft cysts or on papilliform projections into the cysts. Occasionally, though very rarely, we must distinguish between true cell hypertrophy and distention of the cell by colloid granules retained within it. True hypertrophy of a parenchymal cell is indubitable evidence that the cell has overworked. It is not an evidence that the cell is ready to begin to work, but that it has already worked. A blacksmith's biceps does not enlarge in preparation for his labor, but as a result of and during his labor. Similarly thyroid parenchymal cells do not increase in size merely as a result of a demand on the part of the tissues for more thyroid secretion, they enlarge only because of the secretion and as they actually do the work of supplying the secretion.

HYPERPLASIA

The term hyperplasia in the thyroid, meaning an increase in the actual number of cells within a given follicle, is sometimes misapplied to simple hypertrophy. In the histologic examination of sections of thyroid, unless the tissue has been fixed and cut so as to preserve the integrity of the entire follicle, it is almost impossible to form a correct estimate of the number of cells to be found even on the walls of a single follicle in a section which includes only one complete layer of parenchymal cells. When the picture is complicated by infoldings of the walls of the follicle it is even more difficult. Anyone, however, who will take the trouble to count the actual number of cells lining the follicular rings constituted each by a 10 microne section through a considerable area of normal thyroid, and then will similarly count the number of cells lining follicular rings in similar sections from an active exophthalmic goiter, will find that there is a very material increase in the actual number of cells in the latter instance. Parenchymal cell hyperplasia is even more unequivocal evidence of hyperfunction than is simple cell hypertrophy. It cannot be mistaken for edema and it indicates greater functional stress.

NEW FOLLICLE FORMATION

New follicles may form even in adult thyroids within circumscribed areas surrounded by definite capsules; they are thus properly desig-

nated adenomas, or they may be indefinitely localized and without the development of a recognizable capsule, in which case the process should be designated adenomatosis. This latter histologic picture may be simulated by the breaking down of the capsule of a true adenoma. But extensive experience in the histologic study of thyroids will lead anyone to conclude that the weight of evidence is strongly in favor of the development of groups of new follicles within adult thyroids without encapsulation. This formation of new follicles apparently may take place from Wolfer's rests in the walls of follicles in which the epithelium has previously become atrophic, thus constituting a true regenerative process.

We, then, conceive of the thyroid as a gland which even in the later years of adult life is capable of performing more than a normal amount of work and that as it performs this increased work the working parenchymal cells within a follicle increase in size and may increase in number, a process which requires an increased blood supply. Besides this, new follicles may be formed, lined with epithelium which may or may not develop to an adult functioning stage.

CELLS NOT "SICK"

It seems to me of great importance that we do not consider these progressive changes, that is, hypertrophy and hyperplasia, simple multiplication of follicles or regeneration, as disease processes. In these processes in no sense are the cells "sick" but on the contrary they are more than usually well. They are merely cells that are performing a normal physiologic function, that is growth or secretion, at an unusual stage of development of the individual or to an unusual degree. The hypertrophic or hyperplastic thyroid cell is no more a diseased cell than any other stimulated cell. Theoretically, of course, it is possible that it may overwork so as to degenerate, but it apparently possesses a large factor of safety for itself in the regulatory mechanism which switches off its activity by directing it to the storage of excess colloid within the follicle and thus automatically reducing its capillary blood supply.

It should be remarked, however, that the hypertrophic or hyperplastic thyroid cell of exophthalmic goiter which is apparently only performing a normal function in an excess degree, in reality may be producing a secretory product which is not normal. It is, of course, perfectly possible that the ingredients furnished this small chemical laboratory may be lacking in some essential, and that the molecule of the product as delivered to the tissues may thus

lack those atoms which make of it normal thyroxin.

SECRETION INTO CAPILLARIES AND FOLLICLES

It is probable that the active chemical constituent, thyroxin, or an incomplete antecedent of thyroxin is secreted into the capillaries in colloid material of low density, although the experimental proof is not conclusive. Several observers have found colloid, that apparently had been derived from the thyroid, in the vessels and lymphatics of animals after they had undergone certain experiments; but it is difficult to distinguish this from the other colloids of the blood. The substance which fills the capillary ends of parenchymal cells in hyperplastic goiter and has been designated a secretory antecedent, is most probably colloid containing thyroxin. That this colloid is transferred directly into the capillaries, has been questioned because the hyperplastic thyroid contains very little thyroxin. On the other hand, it is difficult to understand how thyroxin, which is insoluble in water, can be passed into the circulation except in absorption in colloid. We know positively that the colloid is excreted into the follicle, it is thyroxin in large amounts and that in the more dense the colloid in follicle the larger the amount of thyroxin therein. It is facts that thyroid parenchymal cells lining the follicles are large and that those lining the follicles filled with colloid are greatly reduced in volume would strongly suggest that the bulbous hypertrophic thyroid cell consists of colloid or colloid antecedents which in the storage phase is excreted into the follicle.

DEGREES OF MORPHOLOGIC CHANGES

The morphologic changes in the thyroid in true exophthalmic goiter may be divided into three general stages:

1. In early exophthalmic goiter, with moderate increase in basal metabolism, usually moderate exophthalmos, and moderate thyroid enlargement, the parenchymal cells show marked hypertrophy and moderate hyperplasia. There is diffuse hypermia throughout the gland.

2. In advanced exophthalmic goiter with a high metabolic rate, usually marked exophthalmos, a well marked nervous syndrome, and usually marked thyroid enlargement, there is advanced parenchymal cell hypertrophy and hyperplasia and little, if any, stored colloid. There is diffuse hypermia throughout the gland.

3. In late exophthalmic goiter with high but sometimes declining metabolic rate, exophthalmos, and a well-marked nervous syndrome; the changes in the gland are similar to those in the earlier stages of exophthalmic goiter, but with beginning of well marked storage of col-

loid. Hypermia is usually materially less than in stages 1 and 2.

The parenchymal changes in the thyroid in true exophthalmic goiter are almost always diffuse, and, therefore, the gland is rarely nodular in its gross appearance except for the occasional occurrence of encapsulated adenomas or adenomatosis.

"TOXIC ADENOMAS"

As pointed out by H. S. Plummer, there is a large group of patients with symptoms clinically distinct from those of true exophthalmic goiter. These symptoms are usually of slow development or, if rapidly developing, they do so only after a long period of nonsymptomatic thyroid enlargement, with basal metabolism increased as much as in exophthalmic goiter, but usually without ocular symptoms and the nervous syndrome peculiar to exophthalmic goiter. This type of hyperthyroidism is so often associated with nodular thyroids that Plummer at first tentatively designated the disease "toxic non-hyperplastic goiter," then "toxic adenoma" and now calls it "hyperfunctioning adenoma."

Since 1908, I have made several attempts at a comparison of specimens from groups of such cases with specimens from groups of other cases with symptoms of hyperthyroidism. Recently, using the metabolic rate as an indicator of hyperfunctioning thyroid in goiter, I have selected two groups at the extremes of the metabolic series selected in chronologic order of appearance by Dr. Boothby.

Group A. Patients with enlarged nodular thyroids with symptoms of hyperthyroidism, but without exophthalmos and the nervous syndrome peculiar to exophthalmic goiter, and with basal metabolic rates of 20 or more points above normal.

Group B. Patients of approximately the same ages with enlarged nodular thyroids, without symptoms of hyperthyroidism, and with basal metabolic rates within 10 points of normal.

I have studied the thyroids from about 250 patients in each group, or a total of more than 500 thyroids. The results are as follows:

Group A. About 90 per cent of all thyroids in Group A show, in one or more of the areas from which sections were examined, distinct evidence of increased activity of the parenchymal cells. This is indicated by moderate degrees of cell hypertrophy and hyperplasia associated usually with some colloid storage. In many instances there are areas in which the follicles are closely packed with dense colloid, but there are also many areas showing follicles containing little or no colloid and lined with hypertrophic parenchymal cells. If colloid is present it has a distinctly lighter staining reaction than that of thyroids in Group B. In

many instances there is considerable parenchymal cell hyperplasia.

Grossly, many of the glands are (1) diffuse colloid goiters without evidence of new follicle formation, but whose nodular character is the result of increased and contracting interlobular connective tissue usually associated with round-cell infiltration indicating chronic inflammation; (2) colloid goiters with definite new follicle formation but without definite capsule formation, adenomatosis, with many of the new follicles lined with parenchymal cells of the functional type which are hypertrophic; or (3) definitely encapsulated areas of new follicle formation, adenomas, with hypertrophic and often hyperplastic parenchymal cells lining follicles which contain little or no stored colloid.

All of these hypertrophic and hyperplastic changes are so moderate in degree and in amount as readily to escape notice except by careful comparison of a large number of thyroids from patients with high metabolic rates slide by slide with a like number of thyroids from patients exhibiting no increase in basal metabolic rates.

In comparing the changes in the thyroids in Group A with the thyroids in a series of typical exophthalmic goiter cases it is found that in general the difference is not only one of degree, but in most instances also of kind. The most advanced parenchymal cell hypertrophy and hyperplasia found in any thyroid in Group A is about the equal of the more moderate degrees of parenchymal cell hypertrophy and hyperplasia in thyroids of the true exophthalmic goiter series; but in most of the thyroids in Group A the histologic picture shows that there has been marked colloid storage in most of the follicles and that now the stored colloid is apparently being taken up by the parenchymal cells and passed into the circulation. The parenchymal cells are apparently not, under high functional pressure, discharging their secretion directly into the vessels as in the case in true exophthalmic goiter, but are first storing it in the follicles. A very common picture in these specimens is the presence in one portion of a large follicle, most of which is filled with dense stored colloid, of small areas of very lightly staining colloid in immediate apposition to hypertrophic or hyperplastic parenchymal cells, while the parenchymal cells lining other portions of the follicle are flattened and atrophic. The chief departure from this picture in thyroids in Group A is in those in which there is very marked formation of new follicles. These, in definitely encapsulated "adenomas," may contain dense stored colloid. Where there is diffuse new follicle formation without definite encapsulation the follicles are not likely to contain colloid, or if any is present it is

feebly staining. The number of the former type of glands is, however, much greater than the latter. From the pathologic evidence alone we are not warranted in concluding that the formation of new follicles is the essential factor in the production of thyroid symptoms, since in almost all glands even in which this is the predominating picture, there are to be found as well many areas which indicate absorption of colloid by reactivated parenchymal cells.

Group B. About 95 per cent of the thyroids in Group B, that is those from patients with nodular goiters, with the clinical diagnosis of adenoma, and without increased basal metabolic rates or other symptoms of hyperthyroidism, did not show in any of the sections from any of the areas examined evidence of even moderate degrees of cell hypertrophy and hyperplasia. The parenchymal cells in follicles of adult type were uniformly flattened or atrophic; in most follicles in adenomas they were of very undeveloped embryonic type. The intra-follicular colloid stained much more densely than that in thyroids in Group A. Grossly, the thyroids from these patients could readily be divided for the most part into three groups closely paralleling those of glands from the hyperthyroid group. A few of the specimens consisted of proliferating adenomas, Langan's Wucherende Struma. It should be noted that the patients from whom these thyroids were removed had been grouped clinically on the basis of nodular goiters. Had the marked nodular character of the thyroids not been recognized clinically no doubt some thyroids would have been found in which the colloid was evenly distributed throughout all the follicles which were lined with atrophic parenchymal cells and the interlobular bands of connective tissue of which would not have been found to be abnormally increased or contracted.

Owing to the work of Boothby and others we may now safely assume that in thyroid disturbances the basal metabolic rate is a fair index of the degree of hypothyroidism and hyperthyroidism. It follows then that the high incidence of moderate parenchymatous cell hypertrophy and hyperplasia in thyroids from the patients in Group A and its absence from almost all thyroids from patients in Group B, together with the different staining reactions of the colloid in the two groups, can be rationally explained on the basis of a causative relationship. That is, the hypertrophic and hyperplastic parenchymal cells in Group A are apparently secreting a substance which is probably responsible for the symptoms and the increased metabolic rate, and on the other hand no substance in sufficiently large amounts to excite symptoms or increase the metabolic rate

apparently is being secreted by the parenchymal cells in the follicles of the thyroids of Group B. This study would seem to place the changes in the thyroid in patients with Plummer's "toxic non-exophthalmic goiter" on a similar though varying basis to that in thyroids from patients with true exophthalmic goiter.

CONCLUSION

In conclusion I wish to remind the members of the Society that though time will not permit of their discussion, we must not forget that whether secondary or primary, there are very marked pathologic changes in other parts of the body besides the thyroid in patients with intense hyperthyroidism. The changes in the cervical sympathetic ganglia, in the cortical brain cells, in the heart muscle, and in a number of the skeletal muscles are uniformly present in patients dying of exophthalmic goiter. The symptoms arising from these changes are very important in diagnosis and in prognosis after surgical or other treatment.

Furthermore, in the present state of our knowledge we are not warranted in assuming that all changes, particularly those of the cervical sympathetic ganglia are necessarily secondary to the changes in the thyroid itself.

HYPERTHYROIDISM FROM THE INTERNIST'S VIEWPOINT

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There is no question at all but that hyperthyroidism or hyperthyreodism, if you wish to call it that, should occupy a very prominent place in our consideration in the district in which we live. We live in a noniodin district, so to speak. We are not favored by mere propinquity to the seashore; we do not get iodine containing material in our environment as easily as it is obtained in other portions of the country.

GEOGRAPHICAL DISTRIBUTION

The geographical distribution of these cases of hyperthyroidism is interesting. It is found, for the most part, in our northern latitudes, and especially about the Great Lakes and in the St. Lawrence River Valley. There is also, as I have found recently when in the northwest, a large area in the State of Washington in which thyroid enlargement is particularly common. It also prevails in Michigan, in Illinois, and Ohio, and in the Great Lakes District. The consideration of this topic is certainly a very necessary one. Naturally one would wonder whether, after all, it is not largely a question of the distribution of iodine.

There was some work done a few years ago which attracted my attention at the time upon

members of the trout family. They found in hatcheries a condition which was regarded as malignant which has been called carcinoma, or by Harvey Gaylord as thyroid sarcoma when he first described it. Harvey Gaylord, who was on the Buffalo Cancer Commission, described an epidemic thyroid condition and came to the conclusion it was a water-borne disease. How, he did not know. He stated in talking to me that on one occasion puppies given this water from these tanks acquired thyroid enlargement and other puppies given boiled water from these tanks did not acquire it. At that time he was of the opinion that iodine was not a factor in the causation of the disease, although at that time I mentioned to him the fact that I was rather of the opinion it was the causative factor.

IODINE CONTENT

Similar investigations were made about ten years ago in certain fish hatcheries in the state of Pennsylvania, where it was definitely proved by Marine that these waters could by being rendered a little more rich in iodine be improved without any undue influence as far as the prevalence of thyroid enlargement in fishes is concerned. In other words, by the addition of iodine to the water in these hatcheries the disease could be prevented. The probabilities are that this particular family of the trout and lake trout are more susceptible to thyroid disease than other varieties of fish, and they are susceptible in cases where the iodine content is unusually low. It is evident from what I have said that we must have iodine in our bodies. The iodine is of value probably in increasing our metabolism rate. It is an item of food, if you wish to call it such, or an item of necessity for us in carrying on some of our most important metabolic actions. It is of a good deal of value, for example, in our brain metabolism, and it is absolutely essential for our thyroid function. If we do not have enough iodine in our bodies, then our thyroids have a measure of conservation, a measure of compensation, exactly like the compensation of the heart in a case of obstruction of the mitral valve, and our thyroids begin to enlarge in their quest for iodine. Hypertrophy and hyperplasia can be looked upon as an effort on the part of nature to get from our blood more iodine in order to store it up for our future use. This iodine is always lacking in cases of hyperplasia. For example, if we take the hyperplastic gland, one finds it contains only about half as much iodine as the normal thyroid. Whenever iodine sinks to a level of less than one-tenth of one per cent, there is apt to appear in the thyroid a hyperplasia. The hyperplasia can be looked upon as a compensatory reaction, and the reason perhaps that young girls rather than young

boys are so prone to the disease may be physiological. The old idea which Quincke had as to the explanation for chlorosis in girls and the storage of iron in the liver for maternity purposes may have the same explanation regarding our thyroid glands. For instance, we know as a matter of observation that girls are about four times as susceptible to thyroid enlargement as are boys, and moreover, we find this thyroid enlargement occurring at the time of puberty, and also occurring in an exaggerated way again at the time of pregnancy. It is a possibility, and even more than that the probability, that this is a physiologic response to a maternity need; that the reason for this enlargement at these times is simply a necessity which is being made by the individual for the storing up of more colloid iodine. The iodine is stored up in our thyroids largely in the form of colloid material. It exists in the gland in a double manner, that is, a certain portion of it is elaborated into thyroxine and then is stored for purposes in the colloid material. That is the active form. Another portion of iodine (inactive) is in the cell itself ready for elaboration. The thyroid is very different from most of our ductless glands in this respect. The adrenals, for instance, have no storage mechanism. The only adrenalin you can get out of the adrenals is not large at the time you extract it. That is not true of the thyroid gland. The thyroid is storing from time to time thyroxine for our purposes. I believe personally, although I do not know it is demonstrable as yet, this thyroxine is one of the most important constituents of our bodies. It is a thing which activates a good deal of our brain metabolism and a good deal of our chemical metabolism. The adrenals also have a secretion, as you know, which is the activated secretion of adrenalin which takes care of us perhaps if we follow the theories of Cannon in our periods of stress and strain, in our sudden anxieties which we encounter as individuals, and which we have inherited in the gradual process of evolution through inheritance with environment in the past. The adrenal is the gland of sudden demand. It is the gland which will make a sudden response and carry us through a few moments or an hour of effort, whereas the thyroid works in our most placid existence and serves as the activator of our bodies in which all our metabolism or certain of its metabolism is manifested in these quieter times. The interrelationship of these two glands is well known to every clinician. I believe that the adrenals have an activating influence upon the thyroid and I think the thyroids have an activating influence upon the adrenals. I think the two things are related to one another, and that the two glands have the same general function.

Ordinarily, there is no trouble with the storage of the iodine in the colloid. Ordinarily, everything runs along as it should, but at some time or another something happened to this mechanism. It happens, as we have learned, in two sorts of ways. We learn that from what was alluded to by Dr. Wilson in his paper. We have two groups of cases which we recognize clinically, or taking the thyroid in general we may divide all thyroids into simple thyroids and thyroids which we call hyperthyroidism cases, and then hyperthyroidism cases with exophthalmic goiter. I do not think we need to make any divisions other than those three, and I think the last two differ only in the matter of symptomatology, and that is largely the effect of the intoxication upon the cervical sympathetic, if the cervical sympathetic is very much irritated. Muller's muscle is contracted by the effect upon the cervical sympathetic and the eyes become prominent. The Stellwag sign, von Graefe's sign, the Mobius sign are signs that appear simply because of one added effect. Why we should differentiate hyperthyroidism with exophthalmos from hyperthyroidism without it, I do not know, because in practically all other respects they are very largely related.

INTOXICATIONS

Organisms respond to intoxications in different ways. As Dr. Wilson has said, there may be acute intoxication and chronic intoxication. Certain it is, some of these cases of hyperthyroidism with exophthalmic goiter do come on very abruptly from fright, worry, emotional disturbance, business losses, etc. I saw one in the case of a woman of 78 from an automobile accident in which there was no liability but great anxiety which resulted in a short spastic reaction, so that it was unsafe to stave off the end.

These cases of hyperthyroidism with exophthalmic goiter used to be what we called classic Graves' disease, Basedow's disease, or Parry's disease. So in a way hyperthyroidism twenty years ago was spoken of as exophthalmic goiter without exophthalmos. Twenty years ago we recognized the fact that there were certain cardiac cases without very serious involvement on part of the nervous system; in which the hyperthyroidism was the undoubted factor of causation. As an internist, one who is accustomed to the examination of these cases can always pick them by the cardiac examination, by the dilatation, sometimes by the slight hypertrophy, by the loud ringing heart sounds which are so characteristic, especially the apical first and second and ringing and aortic seconds. These various clinical types which one encounters can all have of them, have one at a time, and be put into one long series.

It would be a ridiculous thing to put a case of extremely mild hyperthyroidism, with perhaps only a few circulatory symptoms, and another an advanced case in the same category which perhaps may result fatally. I used to think a few years ago we were going to find two types of intoxication. I thought thyroxin which Kendall isolated in 1915 might be one of them and our chemists might find another form. This idea I have given up for some time, and after hearing Dr. Wilson's paper this afternoon in which he states practically that the pathologic appearance of hyperthyroidism cases without exophthalmos are very similar to these, I certainly feel more strongly the conviction, after all, that there is but one form of intoxication in these cases.

SYMPTOMATOLOGY

I do not know that it is necessary in a gathering of men physicians and women physicians, such as we have here, to speak about the symptoms of exophthalmic goiter, as it hardly seems as though it would be worth while. We used always to say there were four main symptoms of hyperthyroidism, namely, tachycardia, tremor, exophthalmos, and the enlarged gland. But I think we have got to add to them in all our textbooks a fifth symptom, and that is increased basal metabolism, because I believe the latter is just as much an important and basic phenomenon in the symptomatology of these cases as any one of the other four symptoms. Some of the symptoms which occur in cases of exophthalmic goiter and hyperthyroidism are due to the intoxication of the sympathetic, especially of the spinal sympathetic, to some extent the cerebral sympathetic and cerebral autonomic. Other symptoms undoubtedly affect the myocardium. Those cases in which there is very marked myocarditis, with anasarca and ascites, are cases which illustrate nicely the untoward effects of the intoxication upon the myocardium. As to the tremor of tachycardia, I think its explanation will be found in the pathologic effects upon the skeletal muscles themselves. I do not think it is cerebral in origin. Perhaps the most important effect of this disease is in the phase which we are only beginning to work into, and that is what one might call internal acidosis of the cells themselves. We have found in cases clinically postoperative, after gastroenterostomies, we can control convalescence before vomiting especially by paying a great deal of attention to the presence of acetone and diacetic acid in the urine after operation. At the Mercy Hospital we have every specimen passed to the laboratory and examined for acetone diacetic acid may occur in a postoperative case of acidosis as you get in a case of exophthalmic goiter. These cases of dyspnea, of intense vomiting and di-

arrhea are an expression of an intense acidosis. It is an intracellular acidosis. It is an acidosis due to the intoxication of the cells themselves, and just as in any acidosis, just as in gastro-jejunosomy, the effect of proctoclysis and of glucose is most salutary, so also in these cases the same method of procedure to combat acidosis should be followed. The tissues should be loaded with water. Glucose should be administered in as large amounts as the organism needs, and bicarbonate of soda is also of value.

There is some relationship undoubtedly between the excess of thyroxin in elimination and the excess of metabolism and the accumulation of waste products. We do not know very much, when we come down to brass tacks about the scavengers, the individual cells of the waste products. We do not know whether the fire is smoking very much or burning except as the major indications of this process come to our attention. But it is not too much to hope as time goes on we may learn to recognize untoward events early and be able to combat them in a very much better way.

Dr. Wilson's paper was interesting from another point of view because it absolutely coincides with our clinical knowledge; that is to say, this is a gland in which colloid is located. A large colloid goiter is a goiter in which there is not much intoxication going on. It is a gland in which the colloid is being squeezed out, in which the colloid is being put into the circulation, and these are the cases in which intoxication symptoms show, so that there is gland harmony between the gross pathologic appearance as he stated and the symptomatology which one encounters.

In the examination of a case of hyperthyroidism the anamnesis is, of course, of great importance. It is not the whole thing, however. We ought in this day and generation to go a little further than that if we are in any doubt. There are cases in which doubts are reasonably proper. For instance, one occasionally encounters a case of early tuberculosis and is rather at a loss from the heart findings and ringing tones and other phenomena which are encountered to say whether the thing is really a beginning tuberculosis or whether it may not be hyperthyroidism. The same thing is true of the condition we encountered in the army which we called neurocirculatory asthenia, merely a neurasthenic state engrafted on an underlying pathologic process. In these border-line cases we have two tests which are of value to us. One of them is the Goetsch test, and the other the basal metabolism test. I am not one of those who believe the basal metabolism test should be done on every case of exophthalmic goiter or hyperthyroidism just for the purpose of making a diagnosis. It costs \$25

to the patient in a great many places at least, and they have not got that much money to pay for the test. It is unnecessary, but it may be vitally necessary in certain borderline cases, and then it should be done. The Goetsch test should never be done in a well defined case of exophthalmic goiter. I saw one case of exophthalmic goiter a few years ago absolutely killed by the zeal of an intern to save the life of the individual by giving some triple chlorid during the last days of the patient's existence. The patient died about 2 o'clock that afternoon as the result of the Goetsch test, which was unwittingly given. Triple chlorid is absolutely contra-indicated in any condition in which hyperthyroidism exists to any great extent, and the Goetsch test should never be done except in border-line cases where it has a place.

METABOLISM

The metabolic test is another test of considerable importance, but it does not have the importance perhaps which is attributed to it. It has no value from the point of view of prognosis. One is not able to tell whether the case is a bad or good one by the metabolic test. These patients may have plus 110 and go through. Neither is it of any value from the point of view of operability of the case. It has certainly no value if the case is a clean cut one. The only value which it has that I can see is in those cases in which it is to be used for diagnostic purposes.

TREATMENT

As to the treatment of these cases of hyperthyroidism, the internist should take charge of these cases for a little while before sending them to the surgeon. I think the internist should have charge of these cases for quite a time. I do not think cases of hyperthyroidism should immediately be passed over to the surgeon for operation. Many of these cases get along very well by the process of gradually cleaning out of their intoxication, probably by processes taking place in their own bodies. You can follow up this process. If we look upon hyperthyroidism mainly as cases of secretion and elimination from the body of thyroxin, it is hypersecretory process. Evidently, anything we can do to arouse hypersecretion is proper treatment. Of these things the most important is rest. We have always insisted on rest in bed in these cases, and we usually insist on it for a long time to come because a great many cases do remarkably well.

I have seen a case of anarsarca and ascites with a circumference of forty-eight inches in a woman, and that woman got well without operation. If it had occurred at the present time instead of a number of years ago, the patient would have been operated on. But in those days, eighteen years ago, we had no

good surgical technic in times when tetany was apt to occur and deaths were very common, because very largely only the cases that were moribund got to the surgeon for operation, and the results were so disastrous that anybody hesitated to recommend surgery. About that time there came into vogue through the suggestion of Leube, a substance put out in Germany consisting of the lymph of thyroidectomized goats. It was put out in this country under the name of thyroidectin. We used thyroidectin in this case and the patient got well. Leube's idea years ago was that plus one of hyperthyroidism added to minus one of hypothyroidism equaled zero, but this fellow's logic was faulty because the excess of thyroxin is not overcome by any deficiency of something else, and when you use thyroidectin you are not making use of minus one to neutralize plus one. The plus one stays there and you are adding blood which does not contain much of anything, a substance which is more or less inert. That went out of vogue. The rest which the woman got, which was enforced upon her because of her ascites and tremendous edema was the thing that ultimately cured her.

Another very important thing is the judicious use of digitalis. I think the surgeons themselves will have to agree that the internist is of some benefit to them, or they themselves have to become temporary internists long enough to give digitalis before operation in operable cases. They, at least, should make use of digitalis to the extent of digitalizing patients before operation. We should have the same privilege as internists. We do not see cases immediately after they are operated on to take care of them in the same manner.

There are also perhaps some beneficial effects to be obtained by the use of sedatives to the sympathetic nervous system. I think bromid should be given to these patients, and the only benefit of quinin hydrobromate is probably the sedative effect which it gives. Sodium bromid has the same sedative effect and it produces the same results. Other therapeutic measures are injection of the glands with hot water or quinin urea.

There remains one other method of treatment which will be considered doubtless by Dr. Crile, namely, the use of X-ray and radium in these cases. Personally, I can only tell you the value of these agents from my standpoint. As an internist I am not particularly pleased with the results which have been obtained in these cases. The only effect the X-ray and radium, so far as I have been able to observe, has is a temporary cessation of the disturbance, with a subsequent recurrence of the trouble. Unless we do away with the pathologic process

which is present, the disease is going to go on. It can only be done away with by prolonged rest, by cardiac stimulation, or as I conceive it, with surgical removal. I think the internist, as exemplified by myself, is becoming more and more convinced that the only way these cases are really to be cured is by surgical removal. I rather think the time is going to come when we shall act in regard to the thyroid very much the same as Murphy acted with the appendix. He was a great preacher for the removal of the appendix for prophylactic purposes in the earlier years of his life. That is what I apply in practice. If an individual comes to me under twenty-five years of age, with a simple goiter, that individual is treated with iodine. Usually with the syrup of iodid of iron I can give that individual a good prognosis. These glands are usually the glands of hyperplasia or hypertrophy. These glands are deficient in iodine, and the reason they are large is because the body wants iodine, and if you give iodine to the individual the compensatory hyperplasia ceases. The gland reverts to its normal size and the individual gets well. Occasionally the individual does not, occasionally the patient may have to be taken care of surgically, as in the case of a young girl now under my observation who is to be operated on Saturday morning. She has been under observation since August with hyperplasia, with hyperthyroidism without exophthalmos. That is long enough. It is time for her to have surgical intervention and she will get it Saturday morning. If the case is older than twenty-five years of age—that perhaps is an arbitrary empirical level—the probabilities of benefit from iodine in a simple enlarged gland are not great. The gland will probably remain at the same size. If it is a very large colloid goiter, it is usually a quiescent goiter case. Thyroxin is locked up in the colloid and it is not in the circulation and is not doing damage and may be left alone, but if cosmetic appearance demand it, it should be removed surgically.

There is the adenomatous goiter which should be operated on. When you discover a case, that is the kind of goiter which at any time may suddenly start off a very serious case of hyperthyroidism or of exophthalmic goiter. Then, of course, if the case be one in which you have reason to believe, there is a carcinomatosis or carcinomatous process developing on top of the adenoma, certainly it should be removed, so that I believe as time goes on we are going to become more and more willing to have these glands removed.

I remember a symposium similar to this in which I took part many years ago at the Chicago Medical Society. Dr. McArthur had to

wind up with the surgical treatment, and he was rather apologetic about it, but at the same time stuck up for his profession and said he thought the time would come when surgeons would take a great many of these cases that complained at that early date, which have troubled the internists and surgeons in general, and operate on them. That same complaint was made in regard to appendicitis, and thusly. If we take these cases early, before untoward symptoms of magnitude develop, we shall be able to help them nicely. There are, however, some cases, eliminating exophthalmic goiter, which will probably go on dying as they have in the past. We cannot offer a zero mortality, but we can offer a mortality which very nearly approximates it.

SURGICAL ASPECTS OF HYPERTHYROIDISM

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The Society is fortunate in having chosen such extraordinarily fine papers in which the conclusions of the authors, it seems to me, represent my viewpoint at least, or what I think about the subject now.

I am very glad Dr. Wilson said what he did concerning adenomata. As to Dr. Mix, he has said a great deal of what I intended to have said, and I heartily agree with him. For years I have been following the work of Dr. Mix and have read his various contributions, and they are always sound and reasonable.

Mr. Chairman, I will touch on certain phases of the subject and try not to repeat, so far as I can, what has been presented. Let us start with the idea that essentially, as Dr. Wilson has said, the disease is in the thyroid gland for our purpose. It may have antecedent causes, but for our purpose it is a disease of the thyroid gland.

DIAGNOSIS

Dr. Wilson and Dr. Mix touched on the diagnosis, and I won't touch on any phase except one, and that is to repeat what Dr. Mix said concerning the many phases of increased activity of the thyroid gland. I should like to add to what Dr. Mix has stated this, that I am quite sure the neuro-circulatory asthenic cases we saw in France were cases of another type or degree. If a man, forty-five or fifty years of age, were to undertake an athletic exercise, the result of his going out on the track to compete with a young college boy in running miles, he would have various types of things happen to him. The part of the body that would fail would be dependent on the part of the body which was the weakest link at the time. The thyroid gland increasing in activity might be

that portion of the organism which would fail rather than any other part of the organism.

I would like to extend the domain of the diagnosis to include other things than those Dr. Wilson mentioned in the cure of hyperthyroidism. I am perfectly satisfied we do have patients with hyperthyroidism. Of course, the activity of the thyroid has not up to that time taken up the factor of safety so as to make the basal metabolism positive. If you have peritonitis in the acute form, you will have an increased basal metabolic rate, but if you have chronic abscesses of the teeth or a small infection, you will have no increased metabolic rate. In either case it is an infection. In the one case it has not taken up as yet the factors of safety within the organism, so that the basal metabolic rate has not been raised. From this point in our clinic we are satisfied we can detect a group of border-line cases that do not give much change in the basal metabolic rate. As Dr. Mix stated, the basal metabolic rate determination does not help the surgeon in handling his case as to what the prognosis may be, as to whether or not the case is operable, whether to make ligation or to do a thyroidectomy. We have been much disappointed in that. In the diagnosis that one point should be added to what has been said by Dr. Mix. First of all, whether or not you have obvious disease. If you have not, still there is a probability of hyperthyroidism.

The next point to consider is the negative diagnosis, and there comes in the great function of the trained internist. We turn over these cases to a man who is better prepared to make the diagnosis and who is able to exclude syphilis, to exclude neuro-circulatory asthenia, to exclude tuberculosis and infections in various parts of the body. That is a most difficult thing to do on part of the internist, to say negatively this patient has not any of those diseases. If you can exclude all of these things and the patient has a steady increased pulse beat and steady nervousness and other symptoms of mild hyperthyroidism, we operate independently of the basal metabolic rate. We have a goodly group of patients in whom we find the same benefits as we find relatively in other cases of hyperthyroidism.

I was much pleased to have Dr. Mix and Dr. Wilson speak of the similarity and the uniformity of the disease. We do not have the feeling at all that we should have a multiple classification. I think the word hyperthyroidism is a splendid name for the disease, and that we might as well disregard those intermediary groupings.

SURGERY

I would like to speak of several points that I think are interesting from the standpoint of

the surgeon. The first point is, what shall we do with the patient who comes to operation with cyclical vomiting, with rapid pulse rate, increased temperature, and all the symptoms with which we are unfortunately too familiar. Formerly we waited. Now we do not. At the present time we find we are quite satisfied that this represents what Dr. Mix stated, the presence in the patient of an intracellular acidosis, and if you analyze the vomiting you will find it can be pretty well described as representing an expression of intracellular acidosis. In the first place, we find that if you give these patients an enormous amount of water subcutaneously, they will get water in the organism. Five thousand c. c. is better than three thousand c. c. of normal salt solution in twenty-four hours. In the second place, if you digitalize the heart, you have done two things, and have done all you can do in addition to physiologic rest. Bromids help to give that rest. You have all you can do to restore, what? To restore the internal respiration of the cell. When you have done that you will find in a short time—two days is usually the outside limit—cyclical vomiting disappears. If it does not disappear, you should make a second attempt to digitalize the heart and give blood transfusions.

What we call hyperthyroidism as a matter of fact represents only intracellular acidosis and the end results of increased metabolic rate, increased metabolism of the cells, which is choking the cells with their waste products. The thing that dissolves out of the waste product is water and the action of the digitalis is merely to increase the force of the pump, the circulation, to give oxygen to the cells, to increase the volume of circulation through the central organs. That is the purpose of digitalis, and that is how it helps in our opinion. Then blood transfusion gives greater capacity to the volume of blood and greater capacity to carry oxygen to the cell. The cell being oxygenized and the water rectifying itself in a short time, we immediately operate. Since using this simple formula we have scarcely ever seen any patient who is required to remain in the hospital more than an average of three days for all cases of exophthalmic goiter or hyperthyroidism before operation. The average is about three days. Occasionally it may go as long as six or seven days.

The next point I wish to discuss is the question of the conduct of the operation itself. I will only give you a general outline. If what we have said is true, and what Dr. Mix has said is true, the disease as we see it is an intracellular process. If that is true, then what we should do is to operate upon these patients and sustain and maintain them in a state of

inactivity during operation, giving large amounts of water and oxygen. If you can do that and do a ligation or a thyroidectomy, how can your patient die? He cannot do that if you can maintain that. He cannot die except from pneumonia or something that is not directly connected with the operation itself. As a matter of fact, that may sound like an optimistic statement, but in our own series of operations, of ligations and thyroidectomies, we have a mortality rate under 1 per cent, and of the 372 operations that have been performed, we have only had the last death recently. This compares favorably with any other type of operation we have performed. In the cases the moment you take out thyroid tissue, you have taken it out for the patient's benefit and you at once balance the benefit against the harm you have done. In all operations you are bound to have a certain amount of harm. The greatest good to the patient will come in the next twelve or twenty-four hours which will balance against the harm of the operation. In our clinic, and many other surgeons are doing the same, we believe that the internal respiration should be maintained during operation unimpaired. This means you cannot give inhalation anesthetics, because they interfere with internal respiration. The only anesthetic you can use is a light stage of gas and oxygen which is called analgesia. Furthermore, we believe you cannot take a patient to the operating room for operation because in the process of taking them there you may have a death as we have had in times past. In taking the patient to the operating room he may die as a result of his metabolism. The metabolic rate may be changed materially by the prospect of an operation, and that may be sufficient to kill the patient. Since that time we have just turned the whole problem right around. We do all ligations in patient's beds in their rooms. We can do it easily. It is not troublesome.

When a patient returns for thyroidectomy, if that patient is a bad risk, we always do thyroidectomy in the patient's room in bed with analgesia plus local anesthesia. We may find it necessary to leave the wound wide open. Why do we do it? Because as has been stated before in the case of hyperthyroidism an essential part of the disease itself is that the nervous system is sensitized to all kinds of stimuli. Many a stimulus that goes into the patient's sensorium after operation is the stimulus of pain after operation from the inner side of the muscles. Much more important as a stimulus which may overwhelm the patient is the stimulus of the ordinary wound secretion which is absorbed. The ordinary wound secretion in an ordinary patient under an operation for hyperthyroidism or an abdo-

minimal operation, we may say, may produce a temperature of one-half degree or one degree as a normal reaction; in other words, so-called aseptic wound fever. If you take a patient with hyperthyroidism who is sensitized to all stimuli, including stimuli of wound secretion. If that is multiplied by four, you have four degrees of temperature after operation; if multiplied by six you have six degrees; if multiplied by seven or by eight, you have eight degrees of rise in temperature by virtue of the drive made by the wound secretion itself—the absorption. When we came to this point and had these high temperatures, we packed the patient in ice. If we do the operation in the patient's room in bed without moving the patient on her pillow, it is done under local anesthesia plus analgesia. By leaving the wound wide open there has been no necessity for the other treatment because we do not see the very high temperature. The second day or the next day, if the wound is closed, it is closed in bed under analgesia and local anesthesia. I wish to point out, however, that it is a mistake to call these cases hyperthyroidism. That is not what the trouble was. The trouble was what Dr. Mix said it was. In that state all you need to do to save the patient is to pack the patient in ice, and if you take the temperature continually, you will see a spectacular fall in temperature from 106 to 101 and to 99 in two hours. Before we noted how rapidly it took place, we drove the temperature below normal; it was subnormal, and we had to use measures to bring the patient back to the normal state again. These patients may be delirious at the time we start the cold; they come out of the delirium much the same as they do from stroke.

TECHNIC

I will not take up the time of the Society with a consideration of the technical part. However, I would like to mention two or three points regarding the technical part. First, it is very important in the hyperplastic cases that Dr. Wilson described to take away enough of the thyroid. I used to make the mistake of removing too much thyroid. Second, it is very important to take care of whatever thyroid you do leave by covering it from top to bottom over the parathyroid and the recurrent nerve, otherwise you may get a bilateral abductor paralysis, then you have a most unfortunate condition. In a case I operated on not long ago, I had considerable difficulty in overcoming that unfortunate accident. I never saw the parathyroids or recurrent nerve. If you operate in such a way on the thyroid you ought to see the parathyroids and see also the recurrent nerve, then you will not hurt them. It means you have left them in the field of re-

pair and with a hard scar you may have permanent abductor paralysis occasionally.

There is one point I would like to discuss which I regard of the utmost importance, and that is, it is important for the physician, the patient and the surgeon to get together in consultation before operation is done with the following point of view: that patient ought to be searched to see what forces there are at work in the patient's external or internal environment that will cause a continuation of the drive against the patient. Has the patient chronic tonsillitis? If a focal infection is present, it should be removed. It is very important for the physician in charge of the patient and the surgeon at the same time, if it can be done, to come to an understanding on another problem, an agreement on it, and that is a period of three months, is the golden opportunity for the patient to make a distinctive reorganization within himself by his organism. The trouble is these patients feel so greatly improved, feel so sure of themselves that they are well, that whatever you may have said to them in the way of caution will be forgotten. They will return to their employment and will take up the ordinary normal life and may later return with a partial recrudescence of the disease. In other words, I have been so impressed with the advantage of obtaining the best end results, that I have spent most of my time impressing patients before operation what is valuable for them to do. I write it down, and while some of the patients agree to do what I tell them, they have not fully followed this plan.

I would like to present a little different viewpoint from that of Dr. Mix, and that is this: I found in the early days, and not so long ago, the process of waiting to see if a patient is getting better before doing an operation was a good thing, but I no longer believe that to be feasible. Today the thing to do, when you make a diagnosis of hyperthyroidism, and the earlier the better, is to immediately, as soon as convenient, remove the excessive amount of thyroid tissue, and there is where the physician comes in. The physician, in spite of dealing with the patient before hand, will do so much more for his benefit without the first handicap of the thyroid taken out of his way, and then, too, for the patient all he would have done for him or her if there had been no operation. Many patients have been cured, but those not cured have sacrificed the expectancy of their natural life after perhaps myocardial damage, more or less permanent, had taken place, after the nervous system had been more or less damaged permanently, and when they came to operation you find you have lost something.

The analogy of Dr. Mix of acute appendicitis and hyperthyroidism is a good one. As Dr. Murphy long ago spoke about appendicitis, so I believe in hyperthyroidism cases we will do better if we will only recognize the fact that if the physician can save 50 per cent of patients by rest cure, if he can do that, he will certainly cure practically all of them by having operation first, then the same thing would have done anyhow. As I see it now, timely surgery in the early stage in a hospital to remove the gland is the thing, and at the present time, if you have an early diagnosis and early operation, there will be almost no mortality rate. The patient goes right back into the hands of the physician, and the physician ought to keep that man or woman closely in hand for a period of a year or two to govern his or her life. Govern it how? By increasing largely the amount of sleep; getting up in the morning at 10 o'clock for a month; have a light breakfast in bed, and be about for an hour or two; have a light luncheon, and then lie down from 2 to 4 o'clock; then have supper, go to bed at 9, and repeat that for one month. Avoid all meat diets, as these increase metabolism, and if you put them on a milk or vegetable diet, it is the thing to do. In the first month it is well to put the patient in a nursery. I think it is a mistake that we have not taught these patients to play their part of the game for the first month, as a certain reorganization goes on in the patient. This is our great chance to cure patients the first month, and in the second month make a little modification, and in the third month they can go back to their work.

RADIATION THERAPY OF HYPERTHYROIDISM

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Radiation therapy is coming to play a more and more important part in the management of toxic goiters. A decade ago the number of cases submitted to this form of treatment was relatively small, the great majority of surgeons preferring to treat their cases by radical operation upon the offending gland. Gradually, however, the literature of the subject has accumulated until we now have a large basis of successful experience from which to draw conclusions regarding the value of radiation therapy in hyperthyroidism.

For the non-toxic effections of the thyroid gland, no value is now attached to radiation treatment. Simple, colloidal, cystic or calcareous goiters should be excluded from radiation treatment, resorting to surgery in such

cases as demand it. Occasionally one finds a case of non-toxic adenoma where radiation treatment will diminish the size of the gland; but in view of the danger of still further reducing the basal metabolism in a case where the rate is already normal or somewhat below, it is probably not wise to employ the rays in any case where there is not a definite hyperthyroidism. An exception to this rule, of course, is a malignant goiter which should first be subjected to a heavy dose of radiation, then removed, and the radiation treatment continued at once after recovery from the operation.

The factors of greatest importance in following the course of hyperthyroid cases are the basal metabolic rate, and the pulse and weight curves, just as in pneumonia we depend upon the curves of the pulse, temperature and respiration. In the Battle Creek Sanitarium clinical work, it is the routine procedure to estimate the basal metabolic rate on all cases of suspected hyperthyroidism, and to continue the metabolic observations at frequent intervals throughout the duration of the treatment, no matter what form of therapy is recommended for the individual case, the basal metabolic rate being considered the best index of toxicity available. Blood sugar curves, adrenalin tests and differential blood counts are useful and interesting, but the basal metabolism is considered of greatest importance.

Large series of published results are not lacking. J. F. Fischer of Copenhagen has recently published his results in 490 cases of Graves' disease treated with roentgen rays. Holmer, Aub and Means of Boston have recorded 369 cases treated up to the fall of 1921. Baetjer and Waters have reported more than 100 cases under radiation treatment. Loucks of Detroit has a long series with radium management. Similarly Heyerdahl has reported on the radium therapy of toxic goiters in Norway, Nordentofft and Blume have recorded a series of 100 cases of Graves' disease treated with roentgen rays. Especially in Germany, where the earlier suggestions to employ roentgen therapy for hyperthyroidism were received with skepticism, the use of radiation therapy for toxic goiters is rapidly gaining ground. Negelschmidt has recently voiced the opinion that no case of Graves' disease should be operated upon until after a careful and thorough trial of radium therapy. In Canada, Bingham and Richards have recorded their results in 300 cases of toxic goiter treated by roentgenization. Aikens has similarly treated a large series of cases with radium.

In the Department of Radiotherapy at the Battle Creek Sanitarium, in association with the director of the department, Dr. James T. Case, we have records of 130 cases of hyper-

thyroidism treated since the introduction of the routine estimation of the basal metabolic rate. It should be made clear that in none of these cases was the radiation therapy the only treatment employed. Rest, modification of the diet, sedative measures of various kinds, as well as careful attention to the problem of intestinal stasis were carried out; the results obtained therefore were not altogether attributable to radiotherapy. The earlier cases were not submitted to radiation therapy until after apparent failure of other non-surgical measures; latterly, however, the radiation therapy has come to be a routine part of the management of toxic goiter cases.

The majority of our cases occurred in women between the ages of thirty and forty-five. About fifteen per cent of our patients were men. The average metabolism test before treatment was plus 38; after treatment plus 15. The highest metabolic rate observed before treatment was plus 110; the highest rate after treatment was plus 38. The lowest rate after treatment was minus 11. The greatest drop in metabolic rate in any case treated was from plus 110 to plus 26 a diminution of more than 80 points. The average weight before treatment was 116½ pounds; after treatment 127 pounds or an average gain of 10½ pounds per patient. The average pulse rate before treatment was 98; after treatment 83. The greatest drop in pulse rate in a given case was from 152 before treatment to 85 after treatment. The least drop in pulse rate in a given case was from 76 before treatment to 60 afterwards.

TECHNIC

Roentgen irradiation is a powerful therapeutic agent. It is possible that in dealing with highly toxic goiters, we may bring about a dangerous exacerbation of symptoms quite analogous to that produced by an untimely operation. For many years, therefore, it has been the custom in the clinic of the Battle Creek Sanitarium to administer the radiation treatment in relatively small dosage repeated at the usual three-week intervals. With the introduction of the new penetrating radiation method employing voltages of 200,000 or more, Dr. Case and I tried out a series with massive dosage of highly filtered rays. Our experience has taught us that the ultra-penetrating radiation of the new high voltage instruments is not required for the successful treatment of hyperthyroidism. In the management of malignant disease of the thyroid gland, it is highly desirable to avail one's self of the new highly penetrating radiation with the powerful apparatus in the effort to deliver to all parts of the gland at one sitting a dose which will be lethal for the malignant tissues. This is ac-

complished, however, at the cost of producing a marked disagreeable dryness of the throat and mouth, discomfort of considerable grade involving the larynx and esophagus, and in many cases a very unpleasant radiation sickness lasting from twelve to forty-eight hours. In the treatment of benign lesions of the thyroid gland it is quite unnecessary to produce these unpleasant symptoms. Greatest care must be exercised to avoid any visible reaction on the skin following treatment in benign cases, for the skin of the neck, especially in hyperthyroidism, is unusually susceptible to radiation, and an erythema is apt to be followed, perhaps after an interval of a year or more, by a disconcerting telangiectasis.

Ledoux in 1912 recommended exposure of the thymus gland in the radiation treatment of exophthalmic goiter. This suggestion was repeated by Stoerk of Vienna in 1913 and by W. S. Halsted of Baltimore in 1914. Baetjer and Waters found in a series of 99 patients with hyperthyroidism treatment only over the thymus gland that a considerable number were entirely relieved of their subjective symptoms, although some of them did not lose the characteristic objective signs of their disease. We have therefore followed the plan of plotting three areas for treatment; one area over each lobe of the thyroid gland, carefully adapting the area to the actual size of the tumor; and one area over the thymus region below the clavicles. Each area receives 28 to 34 milliamperes minutes at a target skin distance of twelve inches, with a peak voltage of 125,000 to 130,000, through a filter of five millimeters of aluminum plus a thickness of sole leather. This treatment is repeated at three-week intervals.

EFFECTS OF TREATMENT

In two to four weeks the patient's nervousness should so far have been reduced that the application of the second series of treatment is eagerly anticipated both by the patient and the physician. The drop in metabolic rate should be definite. A simultaneous and corresponding diminution in the pulse rate is observed. Neither the pulse nor the metabolic rate should be expected to maintain a normal level before the expiration of three to six months. Reduction of the size of the neck is usually noted to slight degree; but we should seek less to reduce the volume of the gland and the protrusion of the eyes than to lessen the circulatory and metabolic disturbances. The roentgen rays act especially upon the secretory function of the gland rather than upon its anatomical state. The influence of radiation upon the ductless glands of the body is well recognized. The effect on the testicle and the ovary is common knowledge. There is a long

list of contributions to the literature concerning the effects of radiation on the thymus and the thyroid. Rave's report is the only one which denies the existence of histologic evidence of the profound effect of radiation on the glandular elements of the thyroid. Our therapeutic aim should be to control the activity of the thyroid secreting elements rather than to abolish it. Proper technic will permit the symptomatic cure of the majority of our cases, say four-fifths. In some it may be required to suppress the activity of the gland to such a degree that a myxedematous state results before the symptoms are relieved. It is here that the estimation of the basal metabolic rate as a routine control procedure enables us to suspend our radiation therapy when the rate is approaching normal, for it is our observation that the rate continues to drop for some time after the cessation of the radiation treatment.

It is possible to accomplish with radium therapy precisely the same clinical results as with roentgentherapy, provided the technic of application is properly managed. The radiotherapist must understand the basic principles governing filtration, dosage, the effect of distance, etc. Under certain conditions there is a distinct preference for the use of radium, as, for instance, with highly neurotic patients, whose unstable nervous systems might be further upset by a visit to the X-ray room even with the smooth running, nearly noiseless apparatus of today. In such cases, ice-bags to the neck will in all probability be indicated, and one can very easily substitute a radium applicator for one of the ice bags, without the patient's knowledge.

An application of a small pack containing 100 milligrams of radium element, filtered through 0.5 millimeter of silver, one millimeter of brass, and six centimeters of felt, may be left in place six to eight hours without visible skin reaction, but with definite depressant influence upon the gland.

In general we prefer the roentgen application as being much more economically given.

OBJECTIONS TO RADIATION TREATMENT

The following are among the reasons advanced for preferring surgical to radiation treatment for hyperthyroidism in cases not complicated by tumors with pressure or other disturbing symptoms:

1. *Danger of Skin Damage.* This is not a serious danger, especially if one employs a voltage as high as 120,000 or more, in the divided doses mentioned under the head of "Technic." It is not necessary to produce an over-reaction of the skin; excellent therapeutic results are obtained without producing any skin action whatever, and such reaction should be avoided in all except cases of malignant

struma. Atrophy of the skin and telangiectases may follow erythema doses.

2. *Danger of Damage to An Already Affected Heart.* It is sometimes argued that the delay attending the slower reduction of the toxicity by the radiation method materially increased the danger of further damage to the heart. Possibly this is true, but it is also proper to question whether the added stress placed upon the heart by operation may not be equivalent to the prolongation of danger to the heart in the interval of four to fifteen weeks of treatment, during which time the toxicity is steadily decreasing under the effects of the rays.

3. *Myxedema.* It is true that this also may occur under X-ray treatment if it is too intense or too prolonged. It has not occurred in any of our cases except possibly one, where the final metabolic rate was minus 11. It is possible that in later years hypothyroidism may result from the continued contraction of connective tissue formed within the gland as the result of the radiation. It is, of course, to be remembered that myxedema supervenes in the ordinary course in a fair number of cases of hyperthyroidism regardless of the type of treatment, surgical, medical or radiological, and even in cases which have received no treatment at all. It is remarkable that in one case of our series treated by Dr. Case over a period of eighteen months beginning more than seven years ago (case of carcinoma of the thyroid) the patient is still alive and well, and not hypothyroid.

4. *Difficulty of Operation After Irradiation.* This is one of the pet objections to the radiation treatment of goiter. In our experience it is seldom indeed that any special difficulty in operative removal of a gland previously subjected to radiation treatment is mentioned by the surgeons. Von Eiselsberg was probably the first to raise this objection to non-surgical treatment. Numerous communications by competent authority tends to show that the occurrence of adhesions between the capsule and the surrounding tissue is not more frequent in cases which have been radiated than in cases where radiation treatment has not been administered. Haberer, Henle and Ropke are prominent among the surgeons who deny the occurrence of post-irradiation adhesions. In our experience the administration of four or five series of roentgen treatments within a period of twelve to eighteen weeks, especially with the higher voltage treatment, cannot perceptibly increase the difficulty of operation; on the other hand, in cases where the radiation treatment has been persisted in for one and a half to two years, definitely increased difficulty in operating is sometimes encoun-

tered. No case should be treated with the rays for a period long enough to produce adhesions sufficient to render surgery more difficult.

5. *Death.* There are reported in the literature only four deaths occurring shortly after the administration of radiotherapy, and therefore possibly due to the radiation. The manner of death in these patients was similar to that which comes in many cases of severe hyperthyroidism, not submitted to radiation, the patients dying under an increasing hyperthyroidism. There were only four deaths recorded in more than five thousand cases referred to in the literature, and in none of the four was there more than circumstantial evidence that the radiation had any direct influence in producing the unfortunate result.

PROGNOSIS

The prognosis depends in large measure on the social status of the patient. Those belonging to the hard-working classes do well while in the hospital or under the constant supervision of a physician; but when they return to their homes they soon have to meet the exigencies of every day life in their usual surroundings, and they are soon led into marked interference with the plan of treatment necessary for completion of the cure. On the other hand, that class of patients socially and financially able to comply with the physician's instructions with reference to rest, quiet, medical and physiotherapeutic treatment, usually do well. Treatment is usually instituted earlier in the disease.

Even in the more severe cases of Graves' disease, roentgen treatment is not only justifiable but indicated, carried out with the precautions required by the conditions of the individual patient. In case of resistance to the radiation treatment, it is not profitable to continue the radiation therapy longer than two to four months. Rather the patient should be referred to the surgical division for operative treatment, perhaps with a continuance of the radiation treatment in smaller doses after the operation. As before stated, there is very little evidence, except the declaration of more or less prejudiced surgeons, that the ray treatment will in the least degree increase the danger or difficulty of the surgical procedure. On the contrary the pre-operative radiation treatment will unquestionably materially diminish the surgical risk, especially the risk of thymic death.

We recognize that while the basal metabolic rate is probably the best available index of toxicity, still the other clinical features of the case must be considered in evaluating the effect of any treatment. In a general way, it may be considered that in patients with pressure symp-

toms or other disturbance of a nature requiring operative treatment, it is risky to operate when the metabolic rate is above 50, and it is safer to wait until it is reduced to plus 40 if possible. We rarely have difficulty to reducing the metabolic rate to the figures named with only one or two series of radiation treatment.

In cases with imminent danger of further damaging an already impaired heart, it is our feeling that the surgical operation should be done as soon as possible, but that in the great majority of cases requiring surgery, it will be profitable to delay until the preoperative treatment can be given. Only where the postponement of surgical interference is accompanied by serious danger should the radiation treatment be considered as contraindicated in the treatment of hyperthyroidism.

THE PREVENTION OF SIMPLE GOITER IN MAN

O. P. KIMBALL, M. D.
CLEVELAND, O.

I was somewhat fearful before I got to my part in this program that it would be dull, but I am pretty sure that a cheerful message on the prevention of goiter is apropos right now.

I am not going into the details of the goiter districts throughout the world. You know the endemic districts and the social and economic importance of goiter as well as I do. When I use the term goiter, I mean simple or endemic goiter, and I do not refer to hyperthyroidism or exophthalmic goiter, to Graves' disease or to Basedow's disease.

Before you can appreciate the fundamental principles underlying prevention; before you can see why we went to Akron to try to prevent goiter in the public schools, we must review briefly the bio-chemistry and physiology of the thyroid gland.

BIO-CHEMISTRY

Away back in the sixteenth century Paracelsus spoke about cretinism and goiter. Two centuries after that a French physician said that goiter was one of the steps on the road to cretinism. As early as 1835 or 1825 we have Parry and Graves and Basedow's description of the clinical complex we have heard of this afternoon, but not a single one of them interpreted their findings as in any way related to the function of the thyroid. No one has ever mentioned the function of the thyroid gland until Sir William Gull gave his description of myxedema in 1874.

In 1896, Bowman discovered iodine was a normal constituent of the thyroid gland. Since that time our knowledge of the chemistry, of

biological reactions, of the histology and physiology of the thyroid has gone on very rapidly.

So far as iodine is concerned, it was used by the Greeks when they gave the burnt sea sponges long ago. In 1820, Dr. Quendy used iodine purposely for goiter, not knowing why, and it was used for seventy-five years before scientists accidentally discovered that iodine was a normal constituent of the thyroid gland. I call your attention to that to show the general results of the thyroid in the last twenty-five years. About 1902 Bowman and Ruse found that iodine was stored up in the colloid, pent up with the globulin.

In 1907, Dr. Marine pointed out that the normal function of the thyroid gland depended absolutely on iodine, and that iodine was the chief or important element in the secretion of the thyroid gland.

In 1915, Dr. Kendall of the Mayo Clinic had gotten out in crystalline form the thyroid hormone, and he finds that iodine is the important element, while you can substitute any of the allergies, chlorine or bromine for the iodine in this particular chemical compound, and it makes a good chemical compound, but in so doing you have absolutely destroyed the biologic action of the thyroid secretion.

Just to give you a summary, about 1907 Marine and Lenhardt showed by their experiments that iodine was necessary for normal thyroid function. Further, they pointed out that just as soon as the iodine falls below one-tenth of one per cent of the normal gland tissue, hyperplasia begins. I want to make that definite as it was referred to once or twice this afternoon. We do know that just as soon as the thyroid gland runs out of iodine, it increases hyperplasia and hypertrophy begins right there. You may have all the work you can possibly imagine, but you can have enough secretion to kill any one of them. Experimentally you cannot produce hyperplasia in animals unless you have removed practically all the thyroid gland. In dogs you have to remove more than three-quarters of the thyroid gland and in other animals proportionally, but experimentally you cannot produce hyperplasia of the thyroid or goiter if it is kept saturated with iodine.

In order to give you a brief summary of the etiology of goiter as it has been thought of in the last few years, Dr. Robert McGarrison in his work in India has been telling us that goiter is produced by a bacterium. Again, Shepherd in making his survey in Canada as late as 1919 insists that goiter is a contagious disease and a water-borne disease, and in considering the bacterium he makes practical comparison with the typhoid bacillus. The work that is being done by the research workers of

this country tends to put goiter in the deficiency diseases. I want to emphasize that from the standpoint of correlating it with the deficiency diseases, for the pediatricians meet it under other conditions. We frequently think, for instance, of chlorosis, and any one would immediately think of a lack of iron. There is no need to waste time in mentioning why there is a lack of iron; but the red blood cell and hemoglobin are well nourished because of a lack of iron.

In rickets there certainly is an abnormal calcium balance and you have the deficiency diseases. We do not know just exactly what they are due to, but deficiency diseases are due to a lack of certain vitamins. These are scurvy, polyneuritis, and so on. I want to put endemic or simple goiter, or adolescent goiter, in the same category. The thyroid is starving for iodine.

To give you a brief summary of all of the work that has been done in Akron, I will say that it has been published several times, and I am just going to give the figures in round numbers here.

The most recent publication is in the American Journal of the Medical Sciences. I will give you a summary to show you why we went down to Akron to start a prevention of goiter. In our animal experimental work it was shown definitely that iodine was essential for normal thyroid activity. From a thoroughly biochemical standpoint, iodine is necessary for physiologic action, the thyroxine or thyroid hormone.

From a histological point of view, glandular hyperplasia of the thyroid is due absolutely to a deficiency of iodine. From a physiological standpoint, the thyroid extract is active in proportion to the iodine content. These facts together with the results we have obtained in Akron on the prevention of goiter show that by keeping the thyroid saturated with iodine the theory of McGarrison, Shepherd and others of a bacterium as the cause is untenable. We feel absolutely sure that the cause of goiter is a deficiency of iodine in the organism.

Up to 1916, they had been carrying out the prevention of goiter in the maternity clinic at Lakeside Hospital for five or six years and practicing the treatment of goiter with iodine in the Lakeside Dispensary regularly at the goiter clinic for over ten years. Quite a few physicians in connection with the Western Reserve Medical School had been preventing goiter in pregnancy and at puberty. Most of the men connected with the Western Reserve Medical School said it was no longer a question but a proven fact. They feel, and we are teaching it, that goiter is the easiest known disease to prevent. But when we started in

our work to carry it out as a public health measure we met with considerable opposition. A great many of the physicians of Akron prophesied there would be an outbreak of hyperthyroidism. Others said there would be an outbreak of iodid rash. Both of these conditions were looked for, and the sum total of ill effects of all our work in Akron of more than 10,000 cases was a slight iodid rash in 11 cases; in 6 cases this rash was so slight that they did not stop taking prophylaxis, while 5 of them were sufficiently troublesome to discontinue treatment.

PREVENTION

I went to Akron to carry out the work in the public school, because being acquainted with the public school system, I knew they had considerable goiter in Akron. They had girls there of the adolescent age with many goiters, and the most important reason was that we could start a campaign of education that would be carried out and be worth more from the standpoint of good accomplished, than the treatment of the goiter itself.

We began with the girls of about the fifth grade age up to the eleventh, and carried it from the twelfth grade on to the high school. This was taken up as a public health measure. The matter was put up to the Summit County Medical Society, and we were to have six months to make a trial of the treatment. The school board was sent a notice to the effect that we might do some good, but the treatment could do no harm, and the members of the school board said they were in favor of seeing the treatment carried out. The school board notified Dr. Marine and myself to make a survey, which we did, and we started in with the method of prevention. The work was started in April, 1917. The name and age of each school girl with goiter was recorded. They were examined, and the back of the card stated they were to receive eight series of treatments. In April we examined more than 4,000 girls from the fifth grade up to the twelfth. During that month more than a thousand girls took prophylactic treatment which simply consisted of one-half dram or two drams of sodium iodid given in drinking water for a period of weeks; I mean by that, three grains a day, once a day for two weeks, or ten doses, spring and fall. That is the prophylactic treatment we used in Akron. Examinations were made once a year and accurate records kept. The girl's goiter card was kept with the school report card, and when a girl went from one school to another the goiter card was passed on. There is no school where we kept as many records as accurately as we did in Akron. That is a tribute to the school system they had at that time.

In May, 1919, the last examination was made. We examined 5,500 girls altogether. We examined just about 10,000 different girls. We have a card index of 10,000 different girls. Half of them elected to take prophylactic treatment. No one was permitted to take it unless there was a written permit from the parent. In those three full years, not a single normal healthy girl developed goiter among the girls who were taking prophylactic treatment. Two of them developed goiter, but they were neglected cases. One was a case of congenital syphilis, and one a case of adenitis and tuberculous adenoids. Not a single girl developed goiter who was in any way in a normal condition. This simply proves other conditions were endemic and prevalent, hence it took more iodine than we were giving to keep the gland saturated. We watched more than a thousand girls for that period of time who were normal, and just these two unusual cases developed goiter. Among the same girls in the same school who did not take prophylactic treatment, 26.7 per cent developed goiter. Among the girls starting with small goiters and taking the prophylactic treatment, there were altogether 1,300. In more than 60 per cent of them during the three years the gland went back to normal, and only three-fifteenths of one per cent of them showed any inclination to increase. Among the girls who had small goiters and did not care to take prophylactic treatment, 3 per cent of them showed a decrease and 13 per cent of them an increase, the rest of them remaining perfectly normal.

The cases were classified in three groups, normal, small goiters or large goiters. Permit me to say here in further explanation of the thyroid function, the thyroid function has a very simple cycle through which it can go. You start out with a normal thyroid gland; it may enlarge, due to a deficiency of iodine, and if it gets iodine it reaches the colloid or resting stage. It may indicate deficiency of vitamins, again become enlarged, and go back to its resting stage.

Of the number of thyroid adenomas, there was about 6 per cent. There were a number of cases of goiter followed by adenomas which you would consider as hopeless congenital goiters.

I forgot to state in the beginning that at the first examination 56 per cent of the girls in the schools of Akron had definitely enlarged thyroids. If there was any question about it, we called it normal. We did not call anything goiter which we could not demonstrate to any one who had eyes and was willing to be convinced.

From a practical point of view, in last week's issue of the Journal of the American Medical

Association there is an editorial giving a summary of the work that has been done on the prevention of goiter. It is a vital question, not only to me but to every one of you. What are you going to do about it? Hold that question in mind.

In Ohio, that is, around Cleveland, we cannot carry out the prophylactic treatment for various reasons, and among them I may mention politics, Christian Science, and so on. But in six other cities and villages in that neighborhood they are carrying this treatment out as a public health measure. I do not know for sure, but I have heard that there are one or two towns in Michigan that are carrying out this preventive treatment of goiter. I believe Bay City is one of the cities in which they are carrying it out. They are very much interested in it as a public health measure in Grand Rapids. This simply shows what they are hoping to do in Michigan.

In 1918 Professor Fraenkel of Zurich, Switzerland, received our letter, requesting him to start the prevention of goiter in Switzerland. He started in the public schools there and his first survey in many of the schools showed that 100 per cent of the girls and boys had goiters. On an average throughout the whole cantons of Zurich, Berne, and so on, 87 per cent of the school children had goiter. We thought we had a terrific endemic of goiter when we had 60 per cent; they had 87 per cent of boys and girls in these cantons with goiter in 1918. They carried out prevention, using the same amount of iodine by a different method. They gave each child five milligrams of iodine put up in a nice preparation. It is the iodine that does the work. On Monday morning the children were given iodine. That is the first they had in the school systems in these cantons.

In January, 1922, the incidence of goiter in the cantons mentioned in 1917 was 87 per cent. In January, 1922, it was 23 per cent. They gave smaller amounts of iodine gradually, and they never had a single case of iodine rash, and with the tremendous decrease in goiter, they had not a single case of goiter developing. Incidentally they had 3 per cent of cases of goiter which represents about the number of adenomas we found which means congenital goiter.

As a practical measure, it is just as easy to prevent goiter among pregnant women as it is in adolescent goiter. But that problem is up to the medical profession. We are carrying it out in maternity hospitals, and a great many of the practicing physicians in Cleveland are doing it. We can sum it up in this way: if every expectant mother in this endemic goiter district can have her thyroid gland kept

saturated with iodine, she would not develop goiter, and the child's thyroid would be normal.

When it comes to the presentation of adolescent goiter as a public health measure, it can best be carried out through the public schools. We have an organization, the treatment can be given by the teachers, and a very important factor is educating the boys and girls so that whenever they go out of school they will continue to take care of their thyroid glands. If each one of us here would simply go home and tell the school board members about the importance of this prophylactic treatment, and can prove to them its value, and that we can prevent every one of these goiters in boys and girls for a maximum of five cents per girl per year, great good will have been accomplished. In a recent talk with Dr. Marine, he says that every expectant mother, when she learns the truth that goiter is the easiest thing in the world to prevent, in five years from now a symposium on goiter would sound like ancient history.

DISCUSSION OF THE SYMPOSIUM ON GOITER

(Papers of Dr. Louis B. Wilson, Charles L. Mix, George W. Crile, Wilbur O. Upson and O. P. Kimball.)

DR. ANGUS McLEAN, Detroit: I think the members of the Michigan State Medical Society are remarkably fortunate today in having heard this symposium on goiter and its treatment, medical and surgical, by the X-ray and radium. We have had the pathology summed up in an admirable manner by Dr. Wilson; we have had the viewpoint of the internist by Dr. Mix, and the surgical aspects presented by a master.

Eighteen years ago we had a symposium on this subject before this Society which was gotten up by Dr. Dock, now of St. Louis. The internists then did not take as favorable a view of how to cure hyperthyroidism as they do today.

The subject was likewise discussed recently in St. Louis at a meeting of the American Medical Association. The internists years ago were not quite so highly scientific as are those with us today. Goiter was beautifully compared to appendicitis, and the position that was taken with regard to appendicitis twenty years ago. We all know that you can have appendicitis, and that you can have an abscess and peritonitis. If the appendix or abscess is dealt with surgically the patient is likely to get well, but if the abscess is left alone it is likely to do great damage and may result in the death of the patient.

With regard to the method of operation, Dr. Crile discussed this subject before our Society two years ago with Dr. Bartlett of St. Louis, and recommended leaving a part of the thyroid, and leaving the wound wide open to allow the secretions or toxins to escape, instead of closing the wound. It is undoubtedly an advantageous thing to leave the wound open, thus establishing free drainage.

DR. FRANK R. STARKEY, Detroit: Dr. Crile spoke of removing a portion of the thyroid gland, just enough, but not too much. That is the thing I cannot quite understand, and I would like to have Dr. Crile, or some other surgeon, tell me how he arrives at that assumption. It is a fact that a great many cases of thyroid enlargement or goiter will vastly improve under iodine administration. It is also a fact that the gland enlarges under certain physiological conditions, like pregnancy and during menstruation, and also in the presence of infection.

I had a patient recently that impressed that point upon me strongly. The patient was a young woman with a large goiter. She was asked to come

to me for the treatment of this goiter, although she had been previously under the observation of an internist or a surgeon. I looked at her throat and saw enormously enlarged tonsils. I sent her to a throat specialist, who removed her tonsils, and in three weeks her goiter was two-thirds gone. In three months it was entirely gone. She received no other treatment except a little iodid of iron. I am sure you have all seen cases of that kind.

So far as metabolism is concerned, I look at that as a part of the technic of laboratories, and something which people have gone crazy over. It is of no legitimate value except in a limited number of cases. It is of no value as a routine measure.

DR. HUGH CABOT, Ann Arbor: The thing that strikes me in the discussion this afternoon is that most of us have come a long way to hear this symposium and to listen to the different viewpoints that were brought out. Most of us have been brought up under the tutelage of great physicians and great surgeons. I have been amazed to see here that a great internist and a great surgeon have given us precisely the same views, almost in the same words, and I did not suppose it was possible. I believe it is one of the greatest revelations and revolutions that has taken place in medicine, on account of the harmony that exists between the views of the internist and those of the surgeon.

I am not able to come to the defense of the X-ray as much as I would like to do. I wish I knew or that anybody else knew precisely what happened when you turn an engine of destruction loose upon an unfortunate patient. I was told long ago, and I have continued to believe it, that the first principle in the practice of medicine is that we shall do the patient no harm. I do not know that I am not going to do a patient some harm by turning loose a force which I know will destroy tissue, and I am not quite sure what tissues you will destroy, as there are various things that lie in the neighborhood. I am one of those terribly biased creatures who have struggled and sweat in trying to get out thyroids after they have been X-rayed, and personally, I don't want them X-rayed.

DR. W. J. CASSIDY, Detroit: We operate today in the average general hospital, and patients get well in spite of the hospital and not because of the hospital. Patients are given preliminary doses of morphine or some other drug, and then what happens? They are asleep. They are taken down the middle of the hall, lying flat on tables, with pans and dishes dropping in all directions, and very soon they are wide awake. You have done the thing you have tried not to do. You have given the patient something to quiet him, but instead you have stirred him all up and have produced an effect on him that you tried not to do. Success does not lie so much in the perfection of surgical technic, in the use of the X-ray and radium, but it must come from a better management of patients in hospitals and better working of the operative groups in the hospitals rather than from advancement in technical measures. So far as any one measure of treatment is concerned, goiter must be put on the same basis as the treatment of any other disease. You cannot advocate dogmatic treatment for any one disease. If you are satisfied that X-ray or radium should be used, do not hesitate to use it. If patients need surgery, give them surgery, or if you think they need surgery, X-ray and medicine, give them all in combination.

DR. M. A. MORTENSEN, Battle Creek: I should like to voice what has been said this afternoon and to emphasize the point that I think we have reached the time when the surgeon and internist will get closer together in the management of not only cases of hyperthyroidism, but other types of diseases, where both are necessary to come to proper conclusions as to diagnosis and treatment.

The diagnosis of hyperthyroidism is not always easy. Many times it requires a longer period of study and careful observation, and even then we are not certain as to the diagnosis.

We have heard about basal metabolism, about the Goetsch test, and a study of the heart, and so

on, as factors in coming to a conclusion as to the diagnosis, and what should be done. I want to emphasize the importance of studying the circulatory system in all cases of hyperthyroidism, and particularly in the type of border-line cases. I think it is important for us to bear in mind in the great percentage of cases of hyperthyroidism that we have a high pulse pressure; that is, we get a systolic pressure higher than the average for the age of the patient, and we get a decidedly lower diastolic pressure in these cases, and that many times will be a guiding factor as to the presence of hyperthyroidism and, at the same time, we should study the pulse as related to exercise and its response to the same. Take a patient with circulatory asthenia, as a rule his pulse will not be increased so materially from exercise in moderate amount as a patient that has hyperthyroidism, so that we have factors there that will be of benefit to us in coming to a conclusion. Furthermore, I wish to say that we forget the surgeon has his field and the internist has his field.

Dr. Cabot stated that the X-ray was a dangerous thing. Others may think the knife is a dangerous thing, and should be wielded with just as great caution as the X-ray. Anyone who has had experience in the management of cases of hyperthyroidism treated by surgeons without success, knows that they constitute a difficult problem. I have had a few cases that have been very difficult to manage because of having had surgery without results. I am sure the surgeon has no more desire to treat a patient who has had surgery applied to the thyroid than he does a gland or patient who has received X-ray treatment. Both of them are not as easy as in the beginning, and consequently we must try and use extreme judgment in our conclusions as to the patient's condition and as to the steps that are to be taken to relieve the patient of suffering.

DR. M. W. CLIFT, Flint: I was rather in hopes Dr. Case would be here to say something regarding the X-ray feature of this discussion. I was glad to hear a defense of the X-ray. However, I think there is too much confidence displayed at the present time in regard to the benefit of X-ray treatment in certain types of hyperthyroidism, but I do not think we should dismiss it absolutely from the field of therapeutics. Only recently in the *Berliner Klinische Wochenschrift*, an article appeared which gave the statistics of 300 cases of goiter treated by means of the roentgen ray. The conclusions reached were very much the same as regards results from the use of the X-ray as from surgery. Aside from that, according to these statistics, there was no greater frequency of recurrence following the use of the roentgen ray than from surgery.

As to the remote dangers of raying the thyroid, I think it must be open to question as to the effect of the ray on tissue. It is only necessary to refer to the work that has been done at various times in the Memorial Hospital in New York, in which the effect on various types of embryonic tissue and on other types of tissues have been pretty well demonstrated.

For a long time most of our surgical friends have been worrying about what the X-ray would do. It is only necessary to call attention to the fact that we have been raying cases for a great many years; we have rayed them through all sorts of difficulties, and yet outside of the unfortunate cases of burns, the remote effects of the roentgen ray are not very well established, and certainly have not produced any tangible thing we can base an opinion on.

As to the treatment with the X-ray, it seems to me it has now about the same status as surgery. I do not wish to be understood as advocating the use of X-ray to the exclusion of surgery. We all agree that there are certain types of cases that are poor surgical risks. These cases I believe are good X-ray cases. Our experience has been extremely satisfactory, controlled with the basal metabolism and following out Dr. Crile's regime following and before X-ray treatment. It strikes me, it is just as necessary to prepare patients for the X-ray, as

it is for surgery, and I do not think the last word has been spoken. There is no question as to the success of surgery, and there is no question about the success of the X-ray, up to a certain point at least.

DR. THEODORE A. MCGRAW, Detroit: I would like to speak briefly about the dangers of iodine. I wish Dr. Kimball had said something about that. The reckless use of iodine should be deprecated; by that I mean, what used to be the ordinary treatment of goiter, and which is still followed by a few men, and that is the treatment of colloid goiter by the use of iodine ointment. One does not know how much iodine he is giving, and very many cases that are treated with iodine ointment finally fall into the hands of surgeons as hyperthyroid cases.

I should like to ask Dr. Campbell whether he has taken up the use of potassium iodide in the form of a table salt, which is used in conjunction with prophylactic treatment. In a very interesting talk by Dr. Farr of Minneapolis, on that subject, he says they are preparing a table salt in Minnesota to be used constantly by the patient for the prophylactic treatment of goiter.

DR. R. E. LOUCKS, Detroit: After the discussion of today of the different forms of treatment of goiter, it is gratifying to the clinical man that no one treatment is indicated in all cases of thyroid disease. After the pathology is established, it is up to the man who makes the diagnosis to judge and decide what form of treatment is indicated in this particular disease or type of disease. Instead of calling it a deficiency disease, I would classify it as a functional condition. For some reason or other, it has been explained that when we come to adolescent age, when we have the adolescent type of thyroid activity, it must be a functional condition. Why, it is not for me to say at this particular time. In other cases there is some infection thrown into the system which kills the activity of the thyroxin or some of the other secretions, and we have functional activity of the gland. If this is kept up long enough and severe enough, we not only get physiological functional activity, but a pathological condition. When we get pathology we have the different types that have been discussed today. It is then we have to decide.

I wish to say a word in reference to radium, inasmuch as it has been mentioned this afternoon. Radium has its place in this field the same as surgery, medicine, or the X-ray. Radium will not relieve every case of hyperthyroidism, but it will cure most of them. It will kill none of them. It is not the radium or the X-ray that kills these patients; it is the acidosis condition. In our cases we treat with radium we take the metabolic rate before treatment; we check up our cases afterward, and we find inside of three months we have a metabolic rate that drops from plus 40 to plus 20, and in six months it drops from plus 20 to plus 10, and in nine months the metabolic rate will be normal. In that way, instead of criticizing or censuring the metabolic rate as determined by the laboratory, it is perhaps the only thing in the line of laboratory work we can prove by our results.

I am surprised to hear any man get up and criticize the work done in metabolism at this present day. As I see it, it is the only thing whereby we can measure and estimate the function of the thyroid gland and show the results of our treatment either with surgery, the X-ray, or radium.

DR. WILLIAM J. WALL, Davison: I would like to ask how large a dose of sodium iodide it is necessary to give to prevent goiter in a particular individual.

In regard to the efficiency of prophylactic treatment, it may be effectual in the human but not in sheep. I have a friend in North Liberty who lives near a high prairie. About fifteen years ago he took in a flock of sheep and found that every lamb taken in that had a goiter lived but a short time, and his attempt to raise sheep was a failure. He wrote to the Dominion government at Ottawa, and was advised to give iodide of potash for a certain period during pregnancy. He tried this out and it worked successfully, and he has with his flock of sheep established a high range at the present time

as a result of that treatment. I might say that adolescent goiter is very prevalent in that district as well.

DR. JAMES T. CASE, Battle Creek: I want to say just a few words with regard to radio-therapy in the treatment of thyroid disease. We want it distinctly understood that we do not recommend radio-therapy to the exclusion of other means of treatment.

About the question of damage to patients as brought up by one of the discussers, I desire to call attention to the recent contributions of Schwartz in Vienna, Pfahler of Philadelphia, and a group of men in Minneapolis, who have demonstrated histologically, physiologically and pathologically from the evidence presented by them, that very little damage is done to these patients by radio-therapy and it behooves surgeons to familiarize themselves with the results before raising the question of irreparable damage being done to patients. The radiation treatment of goiter has been in vogue for a great many years. The only damage which can occur to a patient is a possible myxedema, and that surely does not occur any more often with radium or X-ray treatment than with surgery. The only other damage we can consider is that done to the skin, and I think we only have to recall some of the rather conspicuous scars following this type of surgery, with the relatively few cases of scars following radio-therapy, to feel there is not very great difference after all in the marks left upon the patient, and no one wants to make these scars if he can help it.

DR. W. D. MAYER, Detroit: I would like to ask Dr. Crile to say something about the relationship between focal infection, particularly of the tonsils, and hyperthyroidism, and if he advises the removal of such tonsils, whether he does it before or after the thyroid has been taken care of. That has been a more or less vexing question to me.

DR. LEO C. DONNELLY, Detroit: Practically every one has discussed the other papers, but very little attention has been paid to the paper of Dr. Kimball, which I regard as the most important of all. We all feel we are citizens; some of the older people really are influential citizens in their respective districts, and, it seems to me, as citizens we have no right to go home from this meeting without making some effort toward the prevention of goiter. When it only costs five cents for each school child per year, we ought to take the matter up with our boards of education and try to prevent goiter.

DR. CHARLES G. JENNINGS, Detroit: We have had very satisfactory presentations on this subject. We have had a clear-cut exposition of the pathology. We have had a clear-cut exposition of the relation of the thyroid to internal medicine and the surgical treatment, and a tentative dissertation on the value of radio-therapy in this disease.

First of all, we have had an exceedingly clear-cut dissertation upon the prevention of goiter, which is the most important of all. I wish to bring out one point, and that is the relation of focal infection to the development of hyperthyroidism, particularly in individuals who have already a simple goiter. In any field of observation I think I have seen this relation very clearly. An individual with a simple goiter, with a chronic infected upper respiratory tract and nasal chambers and nasal accessory sinuses, develops very frequently hyperthyroid symptoms, not as severe as in Graves' disease, but a mild hyperthyroidism, and Dr. Crile mentioned the necessity of thoroughly eradicating the source of focal infection. He mentioned one case; I could mention dozens in which the relationship has been apparent, and which has been, before operation upon the focal infection, made certain by the relief of the hyperthyroid symptoms, by the relief of the focal infection. Of the focal infections, the tonsils occupy in my field of observation the most important relation to the development of hyperthyroidism.

DR. GEORGE W. CRILE, Cleveland, (closing on his part): As to when to remove an infected ton-

sil in a patient having hyperthyroidism, whether before or after operation, we have done it both ways. First, we have removed the thyroid to build up the factors of safety, and secondly, have removed the tonsil.

Some one asked how I can tell how much thyroid to leave. The trouble with the thyroid in these cases is its great capacity to undergo hypertrophy, and it comes back, and if you remove too much thyroid, there is hyperplasia after a thyroid operation, and the great difficulty is to keep it down rather than leave too much.

As to the remarks of Dr. Kimball, he is at home. He is not like a prophet without honor in his own country. Marine and Kimball are at home doing this work.

I should like to say a word for the benefit of our X-ray friend. In the X-ray consideration of our work, I will say that we have a number of cases that were being X-rayed, thinking the X-ray might take the place of ligation in preparing for thyroidectomy, but we have been disappointed in the temporary and uncertain results, so that we gave it up. A large number of the goiter patients that come to us have had X-ray treatment for a long time and still have the disease.

We have seen the skin of the abdomen burnt through and through and even muscles burned. Of course, X-ray men would put this down as to improper treatment, or later to improper surgery. The X-ray is an agent of destructive possibilities in these cases in which the tissues were all burned and supplanted by scar tissue. The thyroid had returned and became hyperplastic, with perfectly normal thyroid tissue. In spite of X-ray treatment, the thyroid has great capacity for recrudescence and repair. If you look over the list of names and cases and see the number of patients that have died during the time of protracted treatment with the X-ray, you will find the mortality rate is much heavier than that of surgery in patients as a result of the disease, and not as a result of the X-ray treatment alone. At the present time, we feel that the X-ray treatment will have to be something different than I have seen done thus far in the consideration, first, of recrudescence; second, its uncertainties, and third, in some cases the injury that is done. In many cases it has given us lots of scar tissue when we have come to undertake surgical treatment.

DR. LOUIS B. WILSON, Rochester, Minn., (closing after his part): Though it is the traditional function of the pathologist to throw monkey wrenches into fine diagnosis, I do not want to do that this afternoon after the wonderful harmony manifested here, yet I do feel my job is going. (Laughter).

I want to say just a word or two to indicate that I believe there is still a chance for study even in goiter, notwithstanding the excellent symposium we have had. There are a few facts which still remain unexplained. We have had a great many thousand cases of goiter at the Mayo Clinic. About half of them have been simple, and the other half have been cases of hyperthyroidism, with no relationship between the geographical distribution of these two types. There are certain areas which we know are areas of endemic goiter in the United States, but there is no relationship whatsoever, so far as we can determine, in the geographical distribution of hyperthyroidism in the United States. That shows, it seems to me, that there is an entirely different etiology which is not related to the supply of iodine. That is one of the things we do not know about.

In the next place, I am afraid we are getting too sure about thyroxine. Dr. Kendall has been working three years on the synthesis of thyroxine, and he has obtained several products. He is studying the whole field of products. He has obtained several products that come pretty near doing the same as thyroxine, yet they are not thyroxine.

Dr. Mix spoke of the frequency of involvement of the dorsal sympathetic ganglia. I have examined a lot of these cases—I cannot tell you how many—and have never yet found any evidence of any involvement of the dorsal, lumbar, or the

sacral sympathetic ganglia in patients that died of exophthalmic goiter. The involvement is always present in the cervical sympathetic. I am wondering if the symptoms which were ascribed to involvement of the dorsal sympathetic ganglia may not have been due to another thing which I feel the clinician has overlooked, that is, involvement of the intercostal muscles. In regard to what has been said about Muller's muscle in its relation to exophthalmos, I am quite sure that is not true. I have yet to see a Muller's strong muscle develop in cases of exophthalmic goiter I have examined, but what I have found, on the other hand, in relation to exophthalmos is, that there is a universal relaxation of the recti muscles of the eye, and universal intense hyperemia in the vessels at the base of the eyeball, quite sufficient, it seems to me, to force the eyeball out if there is relaxation of the recti muscles. Every clinician knows that no advanced case of exophthalmic goiter can readily step up a high step because of involvement of the quadriceps extensor we cannot get on the examining table. I have yet to find one who has made use of the universal involvement of the sternocleidomastoid muscle as a diagnostic symptom. Every case of exophthalmic goiter that has come to autopsy under my observation has had a most extensive degeneration of the sternocleidomastoid muscle. The intercostals, the sternocleidomastoid, the recti, and the quadriceps extensors are the principal skeletal muscles involved.

On the other hand, I have had clinicians tell me they had evidence of involvement of the diaphragm, and I have not yet seen any involvement of the diaphragm in any case of exophthalmic goiter.

Dr. Crile says that we should give oxygen to the cells in exophthalmic goiter. Are they not getting too much now in hyperthyroidism? Is not thyroxine the oxidizing agent? If we have too much of it, why give more?

Dr. Kimball's prevention of goiter, is a magnificent piece of work. I would like to throw out a suggestion which may or may not be of any value: We find when we administer thyroxine to patients, it lasts three weeks, and then fades out rather rapidly. It is like kindling thrown on the fire; it burns for a while, then goes out. This might be a suggestion concerning the daily use of a salt containing iodine. If we take salt once in three weeks we probably would be all right.

One thing more, and that is the pathology of the follicle in reference to so-called toxic adenomas. I have tried to convey an impression that there is a difference in the way the parenchymal cell handles its output in these mild, continuous nonexophthalmic cases. It seems to me, it does make it, put it into the follicle, and then take it out again. Perhaps that is wrong, but I am suggesting it.

There is one other thing we have to investigate, and that is, why exophthalmic goiter patients die. Nobody knows. I have made lots of post-mortem examinations with by-standers asking, "why do they die?" Often there is no adequate causes for death.

DR. O. P. KIMBALL, Cleveland, (closing on his part): In the first place, let me take up the question as to the amount of iodine and the dangers of using iodine indiscriminately. In an article that we have written we have called attention to the small amount of iodine that is needed. As a matter of fact, two grams of iodine may be given for a period of three weeks, but in my judgment it would be better if we gave one grain a day for a period of thirty days.

Let me take up the question raised by Dr. Wilson in a slightly different way in regard to giving iodine when we have a normal thyroid and the giving of thyroxine. The storage capacity of the thyroid gland is about 30 to 40 milligrams of iodine. I use two grams of sodium iodide and I use a simple salt of iodine. Two grams of sodium iodide contains ten times enough to saturate the normal thyroid gland. Taken for a period of a month, you will have filled the thyroid gland full of iodine. We simply use amber bottles of two-quart size and put in enough sodium iodide, so that a teaspoonful con-

tains three grams, put in a convenient place, so that different girls come along with sanitary drinking cups and fill the cups with water, and the teacher puts a teaspoonful of this sodium iodid solution in the water and makes them drink it. The teacher watches these girls very carefully and knows that they take it. That is an important part. We have called attention to the danger of too much iodine.

The next question is with reference to potassium iodid. Dr. Slean issued some reprints last year in which he advocated the use of sodium iodid in common table salts. A company is putting out that salt now, a so-called new salt. I saw a sample recently which was marked N. M. an dour Detroit chemist was induced to give their opinion regarding it. As iodine is such a hygroscopic salt, it will probably run out and go down to the bottom, and you will have iodine in about the last quarter of an inch in the bottom. Some time or other a child who is nervous will get quite a dose of iodine and the rest of the people will not be getting any. You do not have any control over that. I would prefer seeing a method carried out where I can give a definite small amount.

As to the method they are using in Switzerland at present, the Goiter Commission has recommended that to the government, so that next year they will carry that out throughout all Switzerland as a public health measure. Each child gets five milligrams the first thing Monday morning.

Some one spoke about functional disease. Every normal girl goes through the period of puberty, and we see thousands of cases of pregnancy. These are two periods in a girl and woman's life when the function of the thyroid is whipped up. In that sense it is a functional disease, but these are normal functions, and the real difficulty at this time happens to be while there is an increase in function. There is also a lack of iodine in the thyroid.

I had intended to give you a real story of the prevention of goiter in animals at Sheridan, Wyoming, and through the valley of the Pemberton Meadows in the Province of Columbia. A most interesting article we can read will be found in the New York Medical Journal of March 15 of this year. Dr. Marine and I got in touch with some of the leaders of the grangers and the agricultural men in British Columbia in 1918, and this article in the New York Medical Journal gives a summary which amounts to this: They could not raise pigs, calves and lambs and even their chickens. Roosters could not grow after a year old on account of goiter. These grangers give sows three drops of tincture of iodine once a week. The sheep got iodine in the water, and the remarkable thing is that since the grangers have started using iodine they are raising so much young stock that they cannot raise pigs to feed them. They have not had a single case of goiter. In other words, they have obliterated goiter in their domestic animals where they can take care of them by that simple method. This method is carried out through the whole valley of the Pemberton Meadows.

If any of you should go back home and see that the school board or the health authorities are interested, I will be very glad to write down the details of my experience and tell them how to start. Furthermore, if the school board and health authorities so desire, I will pay my own expenses and tell them how to do it.

DR. CHARLES L. MIX, Chicago, (closing the discussion): I do not know that I have much to say except to come to my own defense. Are you sure, Dr. Wilson, I said dorsal gland? We agreed it was the cervical gland. I am glad to know that part is straightened out.

There was one thing I had thought might be added, that simple goiter occurs, for the most part, in girls in the proportion of four to one, whereas exophthalmic goiter does not. It occurs pretty nearly equally among the two sexes. It shows a fundamental difference between the two.

I should like to throw a monkey wrench of my own into this discussion. Why is it, if hyperplasia as a compensatory hypertrophy in the quest for iodine, the same gland subsequently becomes senile because it pours too much thyroxine in the system? That is a poser, and while it does not bear on the

same proposition perhaps, yet it does seem it is physiologically the case. At any rate, it is hard to explain the proposition on any other basis. We can easily understand how thyroxine intoxication can go over to the stage of myxedema, but how thyroid deficiency with compensatory hypertrophy should subsequently become a hyperthyroidism case is a little difficult to figure out.

There was one other point I thought ought to be mentioned, and that is this, that prophylaxis is never going to prevent exophthalmic goiter; it may to some extent insofar as it overcomes fatal adenoma and lessens the incidence, but it will not prevent it. We will have cases of thyroids which have gone wrong.

In regard to the circulation, something was said about the very important fact that the systolic pressure is high, while the diastolic pressure is low. That is very true, but that is what the problem is. If you are accustomed to looking at a patient and noticing this throbbing, you do not need to get out your manometer to figure it out. I think in the majority of cases we can pick out these throbbing, pulsating cases, and without taking blood pressure you know before you do it, it will be 170 and about 60 or 70, with a pulse pressure of 100. You will notice also that as these cases improve throbbing disappears; the two pressures get together. These patients fluctuate; the throbbing will fluctuate. Some days there will be a great deal of throbbing, while on other days there will not be so much. Evidently the dosage put into the system varies from time to time, from hour to hour, so that the intensity of the intoxication varies.

I was glad to hear about Dr. Kendall's experience in regard to thyroxine because, as I stated, I believe that there is more than one form of intoxication. I have come to the conclusion that one form of toxin would explain all of the cases, and that we have merely varying degrees of susceptibility on the part of certain organs to different organisms.

I also think—and I believe you will agree with me—that Dr. Wilson ought to be a clinician instead of a pathologist. I think he ought to give us some of his observations in regard to the sternocleidomastoid and other muscles and set us right. I am glad to be set right in regard to what he said about Muller's muscle. The explanation of the hyperemia in the postorbital region is a more sensible explanation than any effect upon the cervical sympathetic, particularly when you try to dissect it out.

BRAIN ABSCESS OF OTITIC ORIGIN

MAX MINOR PEET, M. D.

ANN ARBOR, MICH.

A brain abscess is the result of a circumscribed purulent encephalitis. The suppurative process is always subsequent to a more or less localized inflammation of the brain, due to the introduction and multiplication of pyogenic micro-organisms.

The usual etiological factors are otitis media, frontal sinusitis, ethmoiditis, trauma and septicaemia. Of these, otitis media with mastoiditis is by far the most frequent, over half of the cases being due to this cause. The brain abscess develops about four times as frequently in patients with chronic otitis media as in those with acute middle ear infections. No age is absolutely immune, although probably not more than one per cent occur under five years of age. Between ten and eleven per cent occur from the fifth to the tenth year, while the second decade has an incidence of over thirty-seven per cent.

The third decade shows a slight drop to thirty and eight tenths, according to the compilations by Okada.

The usual pyogenic organisms causing brain abscess are the staphylococcus aureus and the streptococcus pyogenes. However, a wide variety of organisms have been isolated and mixed infections are not rare. Occasionally the tubercle bacilli is found, associated with a tubercular osteomyelitis of the temporal bone.

The usual path of infection is through the Eustacean tubes to the middle ear, thence to the mastoid cells, and later by direct continuity or through emissary vessels to the dura and underlying brain. In children the infection can pass more or less readily through the patent squamo-petrosal fissure, while in adults it passes through the thin tegmen tympani which is found carious at operation. The abscess in the above case will usually be found in the temporo-sphenoidal lobe. On the other hand the infection may pass through the mastoid process with or without involvement of the lateral sinus, resulting in a cerebellar abscess. The bony plate separating the mastoid cells from the sigmoid fossa is very thin and yields readily to infection so that the abscess is usually found immediately adjacent to the lateral sinus at this point. Again, the infection, especially in chronic cases, may spread from the labyrinth through the internal auditory meatus to the cerebellum. In the ordinary case of brain abscess osteomyelitis of the bone overlying the dura takes place and the infection spreading over the adjacent dura produces a pachymeningitis externa. Organisms then pass through the dura give rise to a pachymeningitis interna. Fortunately the inflammatory process in the dura frequently causes a localized leptomeningitis with the formation of adhesions between the dura and the underlying arachnoid and pia walling off the dangerous subarachnoid space. The infection is thus seen to pass by direct continuity from the carious bone to the dura, through the latter to the arachnoid and pia and hence directly into the brain substance. Complications which may arise during this passage are epidural abscess, sub-dural abscess and meningitis. The brain abscess may be a direct continuation of the subdural suppuration, the intervening membranes having broken down and a cortical abscess developed. Frequently, however, the superior blood supply of the cortex, while not preventing the passage of the pyogenic micro-organisms, does prevent actual suppuration and the abscess develops in the deeper, more poorly vascularized white substance.

A visible tract of inflammation may not be found. In these cases, according to Macewen, the organisms are carried by direct vascular

channels, either by extension of an infected thrombus through emissary veins to the pia and subcortical tissue, or by an embolus carried inward by a reversal of the circulation.

In this connection it is interesting to point out that the vessels of the pia have numerous anastomosis while the vessels of the white substance are end arteries. This may account for the much frequent occurrence of subcortical rather than cortical abscess. Usually the brain substance overlying a point of suppuration shows considerable inflammation, sometimes definite softening. Occasionally, however, the cortex is macroscopically normal.

According to Heinmann, who collected six hundred and forty-five cases, abscesses in the temporal sphenoidal lobe are about twice as frequent as in the cerebellum. Occasionally the abscess of otitic origin is found in the frontal or occipital region and cases have been described where the abscess was located in the optic thalamus and in the pons. Except for the very rare case we may say that the abscess is always on the side of the primary focus.

Okada finds that the cerebellar abscess is most frequently associated with an acute otitis media. On the other hand chronic otitis media, often of many years duration, especially when associated with choleosteotoma is the usual cause of the temporo sphenoidal abscess. They develop most frequently during an exacerbation of the chronic process or when free drainage is interfered with by polypoid or other growths. There is considerable evidence to indicate that brain abscesses may develop even after the otitis media or mastoiditis has been cured.

DEVELOPMENT

The development of a brain abscess has been divided clinically into four stages, namely, the initial, the latent, the manifest and the terminal. The initiatory stage represents that period in which the acute purulent encephalitis develops. Actual suppuration with the formation of a pocket of pus is the end result of this stage provided the encephalitis remains localized. Rather frequently the inflammatory process spreads diffusely and death ensues before an abscess cavity can develop. In this initial stage there is found microscopically a dilatation of the blood vessels, rupture of capillaries, oedema, infiltration of leukocytes and much cell detritus. The symptoms are those of an acute encephalitis, delirium, marked irritability, sleeplessness, excruciating headaches, or in some cases, drowsiness, somnolence or even coma. The temperature is high, a leukocytosis is present and without other complication, the pulse and respiration are usually increased. There may be some tortuosity of the retinal vessels or a slight choked disk. The symptoms

may be entirely those of a meningitis, which in fact is not an unusual complication. In fact it may be absolutely impossible to make a differential diagnosis even with the spinal fluid findings at hand. This initiatory stage usually lasts only a few days.

No surgical procedure directed at the intracranial lesion is of value at this time. The primary focus should be eradicated or at least efficient drainage obtained and if sinus thrombosis has developed, ligation of the jugular vein and irrigation of the lateral sinus in the usual way is indicated. Any attempt to reach the intracranial inflammation, even by needle puncture, is to be definitely discouraged as no possible improvement can result since no free pus is present. The procedure may be definitely harmful, exciting further inflammation and might be the cause of a diffuse encephalitis or meningitis, whereas if the process had been treated conservatively, it may have become localized. The administration of anti-streptococcus serum when the streptococcus is found to be the causative organism, may be of some benefit, according to a few case reports. Personally, I have seen no improvement following its use and am doubtful of its routine value.

The latent or quiescent stage represents the period in which the acute symptoms subside, the abscess becomes circumscribed and a definite wall develops. The signs and symptoms of an intracranial lesion may be wholly lacking. Usually, however, headaches at rather frequent periods are complained of. It may be very excruciating or of a dull, steady type. The location is not diagnostic, frequently being in the frontal or occipital region or both. Patients will generally state that the headache differs from any they have ever had before. Irritability, changes in temperament or disposition, inability to concentrate, slower mental reaction or what we might call a sluggish mentality, poor memory or lack of initiative have all been noted during this stage. The pulse is usually normal or slightly subnormal, temperature is frequently subnormal, but the leukocytosis will often show a definite rise. Respiration vary, but usually are a slow normal. The period of marked mental irritability, which I have seen in several cases, did not show the corresponding rise in respiration and especially the pulse which would normally be associated with such outbursts.

Frequently the headaches are supposed to be due to the otitis media, or a frontal sinusitis. Sometimes the eyes are thought to be at fault and when, as not infrequently happens, the patient has nausea, or vomiting, or both, the stomach or intestine is held responsible and treatment directed at the gastro-intestinal canal is instituted. An examination of the

fundus will usually reveal tortuosity of the vessels, a haziness of the cup or in more advanced cases a choked disk. These changes may be found in one or both eyes or more pronounced in one, but even when unilateral they have no localizing value.

This quiescent period may last from a few days to several months and on rare occasions, even years. At times the abscess develops so rapidly that we can scarcely speak of a latent period and in reality it is only represented by a few hours in which the acute symptoms are somewhat abated. This is noted especially in infection with the streptococcus haemolyticus. In these cases the presence of an abscess generally is suggested by the failure of the temperature and more particularly the leukocyte count to return to normal and for the headaches to disappear after a properly perforated mastoid operation. It is only when the symptoms fail to clear up that the otologist looks for a possible intracranial lesion.

The latest stage is the ideal time to operate, as the abscess cavity is well walled off, the surrounding encephalitis has disappeared or at least become stationary, and little permanent damage has been done by tissue destruction.

The manifest stage represents a continuation of the previous period with the addition of more pronounced signs of intracranial pressure and depending upon the location of the abscess, the development of focal or localizing symptoms. No sharp distinction can be drawn between these two stages and in fact the abscess in the so-called quiescent period would frequently be manifest if a more careful examination of the patient was made.

The symptoms which become more pronounced are those of increased intracranial pressure—headache, projectile vomiting, slowing of pulse and respiration, and sluggish mentality to the point of drowsiness or the "dreamy state."

The leukocytosis averages about sixteen thousand, but varies considerably. The temperature may remain normal or sub-normal, but rarely shows a noticeable rise.

A sensory aphasia is common in temporo-sphenoidal abscesses. A true aphasia may be absent, but a condition simulating aphasia and sometimes diagnosed as such is often present, namely, the slow, hesitating speech due to general cerebral compression. Motor aphasia may occur in abscesses of the frontal lobes and at times is the only localizing symptom. Loss of the grip in the hand of the opposite side is an important and easily elicited sign frequently found in large abscesses in the temporal sphenoidal lobe. A lesion in the cerebellum may give the characteristic gait, a positive Rhom-

berg sign, asynergia, pass pointing, dysdiadochokinesia, and nystagmus.

Terminal stage. This is a period of recrudescence. The abscess ruptures either into a ventricle or through the cortex, or the infection passes through the abscess wall, in either case producing an acute encephalitis and frequently a fulminating meningitis. The symptoms are those of the acute encephalitis delirium or coma, slow respiration of the stertorous or cheyne-stokes type. Dilated pupils, rapid pulse and high temperature are precautions of the end.

Operation during the terminal stage is almost hopeless. I feel however, that it is justified as occasionally a patient will recover.

Choice of approach to the abscess.

If the abscess is directly beneath the original focus of infection and the dura, eruchnoid and pia are adherent—then the ideal approach is certainly through the primary infected area.

If, however, there is no evidence of the presence of an abscess such as a change in color, budging, or lack of pulsation in the dura, then I feel that the danger of carrying infection into non-infected areas should make us hesitate to immediately search for a possible dorsal collect of pus.

DISCUSSION

DR. ROY B. CANFIELD Ann Arbor: Doctor Peet says that the first stage of brain abscess is that of acute encephalitis, with which I agree, but I believe also that during this acute stage there is an attempt on the part of nature to produce that limiting membrane which later appears so well defined. Why in one instance that produces acute encephalitis and in another brain abscess is difficult to understand, but it certainly does.

Doctor Peet stated that the infections usually found are streptococcus and staphylococcus. The only infection I have been able to find in brain abscess has been the streptococcus, and in my own experience the presence of staphylococcus indicated a secondary infection from the surface.

In respect to getting results in these cases, I think the important thing is to know whether the abscess is of the superficial type. Superficial brain abscesses are treated quite successfully surgically, while deep brain abscesses are always fatal unless one is able to bring that abscess to the surface and treat it as a superficial abscess. Therefore when the abscess is located my first desire is to make that abscess a superficial one. With that in mind I introduce the encephaloscope. The encephaloscope I use is an old-fashioned childrens' protoscope which fits well into the obturator. That encephaloscope is inserted gently along the tract of the incision and the abscess drained through it, and it seems to me in that way the minimum amount of trauma is produced, especially considering the fact that in order to get results we must bring that abscess to the surface.

I take respectful issue with Doctor Peet with regard to the use of tubes. I prefer to treat a brain abscess daily with the encephaloscope. If you slip the encephaloscope into the abscess once and gently move it up and down the tract you have produced a channel through which you can make drainage. If you do that the second day, the encephaloscope slips along to the abscess without pressure, and you can gently wipe out the abscess with sterile cotton, withdraw the encephaloscope, bandage the wound, and leave the patient in good shape until the next dressing. By doing that it

seems to me you achieve one thing, that is, during the intermission between treatments the brain has nothing in it which can traumatize; but if you insert a rubber tube and a piece of gauze and leave it there from one dressing to the next, you have introduced a foreign substance that moves back and forth with the cerebral circulation in such a way that to a certain extent in the depths of the wound you make soup of the deeper parts of the brain.

Following the insertion of the encephaloscope and inspection of the abscess, gently wipe it out, then pass a swab of cotton saturated with Dakin's solution through the encephaloscope, draw out the encephaloscope, later draw out the swab of cotton, and you have sterilized the abscess cavity and the tract to the surface. Our rule is to do that daily until the abscess cavity and the tract has remained sterile for fourteen days. Why fourteen days? Because the life cycle of the streptococcus in any wound is thirteen days. If the wound has remained sterile for fourteen days you can suspend the treatment and allow the wound to close, and if you should have a re-infection, your tract is prepared to the surface. The abscess is easily localized and you can repeat it.

Now I submit that the traumatism of the brain by the encephaloscope, nicely handled, is less than the traumatism resulting from this wigwagging back and forth of the drainage tube. I do not wish to be understood that my results in brain abscess are better than Doctor Peet's, but in the last six cases I have had five recoveries, and of these four were deep. One was $3\frac{1}{4}$ inches from the surface of the brain. That case got well. The brain was daily treated with the encephaloscope for about three weeks, at the end of which time the abscess had been sterile for fourteen days. One is amazed to see the rapidity with which these abscesses come to the surface. In three or four days there is no longer an abscess cavity, but a straight path to the bottom of the abscess, and that bottom of the abscess comes rapidly to the surface, so that in eight or ten days that tract is an eighth of an inch deep.

One great precaution that we take is the sterilization of the field around the abscess. Before the brain is incised it is carefully cleaned with iodine and cultured, and that culture is repeated at regular intervals, so that the surface in the neighborhood of the brain is sterile, and the hands are kept eight or ten inches away from the scalp because we fear we will introduce from the scalp the staphylococcus albus. We have found recurrence of the abscess at the end of six weeks because of the introduction from the scalp of the staphylococcus albus.

I see some of you shaking your heads when I speak of the encephaloscope, but I beg of you to give it a trial. Of course if you have a case where some of the brain substance is destroyed and the abscess is deep, some traumatism is necessary. But the question is, how can you produce the least and secure the results? I do not believe it is by packing the abscess and putting in a drainage tube. The circulatory movements of the brain during an infection are quite marked. Nor do I believe in irrigation. I have failed to see a case recover, and my friends have not been able to tell me of any case of brain abscess that recovered after frequent irrigation. But I do suggest the use of Dakin's solution, which does two things—it sterilizes the abscess and it does produce a little stiffening of the brain. It hardens the brain tissue in the neighborhood of the abscess and renders less likely the extension of the infection into the cavity, and it seems to me gives the patient a better chance for recovery. I prefer to use the encephaloscope rather than to put a drainage tube into a part of the brain that I cannot see.

DR. B. N. COLVER, Battle Creek: I was much interested in one point that Dr. Peet touched rather lightly, and that is the occurrence of brain abscess at a distance from the healing of the otitis media or meningitis. It seems to me that in these cases the chances are certainly nine to one that the infecting organism is the pneumococcus or the

streptococcus capillaris, and I would like to emphasize the importance of bacterial examination of the pus of an otitis and certainly of a mastoid process, and then if we do find these particular organisms, keeping that patient under observation for a long time, perhaps a year after the operation, so as to safeguard the case and see early indications of such a complication as brain abscess.

DR. DON M. CAMPBELL, Detroit: Brain abscess is too often looked upon as a condition merely within the cranial cavity. The fact is that we have the extra dural abscess and the sub dural abscess, either one of which is brain abscess; and then we have this collection of pus surrounded by normal brain tissue, and that is brain abscess. The surgical handling of these three different types is vastly different. There is no difficulty in handling the extra dural abscess, and not usually the subdural abscess, but it is a very different proposition to handle a true brain abscess, one that is entirely surrounded by microscopically normal brain tissue.

The point that Doctor Peet makes that this pathology should not be approached through the infected wound is absolutely well taken. As he has pointed out, the matter is not of extreme urgency—it is not something that must be taken care of today or tomorrow, but at a time when conditions are best and by a route that enables one to reach the abscess through a sterile wound.

The localization of an intra-cranial abscess is a thing that I believe has been a bugbear to the oral surgeons. It is not always necessary to use localization of the intra-cranial lesion in order to handle the situation in the best way for the patient. The great thing to know is whether this lesion is subtentorial or supratentorial and to relieve that which is always present—intra-cranial pressure. That can be done, if the lesion is subtentorial, by doing a sub-occipital decompression; and if the lesion is supratentorial, by a sub-temporal decompression. Then we can wait until the abscess can be definitely located. These two things are very important, for they clear up the uncertainty of an intra-cranial lesion from a surgical point of view to a great extent.

I want to hark back a little in the treatment of this disease to the prevention. We do not operate to save the hearing in otitis media, but to prevent this thing that Doctor Peet has brought to our attention. That is the viewpoint we should hold in the matter of treatment of chronic suppurative otitis media, and that is really a part of the treatment of prospective brain abscess.

DR. WILLIAM J. CASSIDY, Detroit: It seems to me that the question of brain abscess resolves itself into anatomical divisions. If you have an abscess of the chest that involves the pleura, you have a lung abscess. The same thing should apply to the brain. If you have an abscess involving the meninges, the dura, pia and arachnoid, you have suppurative meningitis and not brain abscess, the brain being involved simply by continuity and not directly the brain tissue itself.

The type of brain abscess which is most difficult to treat is the embolic type within the brain itself, and the other type which is between the convolutions. It is difficult at times to tell whether you have the intracerebral, or an abscess between the convolutions, and it seems to me your treatment is entirely different, depending on where the abscess is located. If you have a suppurative meningitis you should go through the suppurating area, and if you have symptoms of brain abscess and on opening the brain find practically no inflammatory process, why not simply pack a little gauze around it and wall off the dura and then go in at a later date?

Another important point it seems to me is that these patients should have local anaesthesia. As a rule they are in a fairly desperate condition, and with a general anaesthetic you very often turn the table and lose the case as a result.

As to drainage, I cannot get the idea of Doctor Canfield, for this reason, that the brain normally lies against hard bones, and I cannot see why a rubber tube will do any harm. It is being pounded

against the skull every day and it does not seem to be harmed. Why would a little soft rubber tube create such a lot of trouble? It is simply a matter of opinion.

The question of infection varies. Sometimes the abscesses have a terrific odor.

Some of these cases go on for a long time and you do not know it until you discover it accidentally. The patient does not have any increase of intra-cranial pressure. Sometimes the brain is normal, the dura is smooth with the normal amount of fluid on the outside, but find there is a disturbance in the veins and a little exudate, and that is about the only indication you have of abscess underneath. The whole problem is to treat the individual case as you find it. They do not all get well, even after you do drain them; they will recur, and you are up against it in an area that is almost impossible to drain.

DR. J. H. WOOD, Detroit: I wish to make a suggestion in regard to another antiseptic, that is, the succinic dioxid introduced at Ann Arbor fifteen years ago. This antiseptic has the advantage of being equal in its germicidal power to other antiseptics; it is less irritating than Dakin's solution by a very wide margin. Whether there is any advantage in the hardening effect that Doctor Canfield spoke about it is not altogether certain. The succinic dioxid has the advantage of making no inroads on the tissues whatever, it is non-irritating and can be used without fear of any particular action on the cells.

DR. LEO C. DONNELLY, Detroit: If you push a proctoscope into the brain and treat an abscess and swab it out with Dakin's solution, you cannot pass quartz crystals along the same tract. The ultra violet rays will go direct to the quartz crystals. The ultra violet ray will do from four to eight times as much good in treating the abscess as Dakin's solution. I have had about five or six years of treating septic wounds. I can do about four times as much good with the ultra violet ray as with Dakin's.

DR. MAX PEET, Ann Arbor, (closing): Frankly, my associations with Doctor Canfield have been extremely pleasant, and I actually hesitate to give my objections to the encephaloscope—really a proctoscope—because of these pleasant relations.

As far as the rubber tube is concerned, any brain abscesses we have opened had sufficient oedema around them so there was no pulsation. In those we have drained the rubber tube did not pulsate. It was a very soft rubber tube, and instead of using it straight, I cut it spirally—it is just like a spring. I still disagree with Doctor Canfield, but possibly as time goes on one or the other will find something better. I have no objection to his using his method. I do know he puts this scope in gently and others would do it roughly, and I think that may make the difference between the rubber tube and the encephaloscope.

My chief objection to the encephaloscope and then packing it until the next day is the condition we have in the abscess—in abscesses anywhere. The rule is to keep the drainage open for fear of back pressure. I have seen brain abscesses that filled up and I have seen them opened below, and every time you opened them there was a gush from the pressure. It seems to me that the traumatism from the rubber tube would not do as much harm as damming back that pus. We have used the Dakin solution in practically every case, not only because of its sterilizing effect, but because in many of these abscesses there is more or less exudate, and Dakin's solution certainly does have a tendency to liquefy.

Irrigation I do not believe in at all. On the other hand, if we have a very large amount of thick pus very careful irrigation without pressure, usually allowing it to run out, does clear up a large amount of tissue.

Doctor Wood spoke of local anaesthesia. I have used it sometimes, and sometimes I have operated without anaesthesia. My experience has been that everyone of these cases die. I have never operated on a brain tumor that the patient did not die. You

can do almost any operation under local anaesthesia with a minimum of pain. After you cut through the plate they complain a little. If I have a nervous patient it makes me nervous to work under local anaesthesia, so I prefer a light ether anaesthesia. I do not like gas if I can help it. People who have had pneumonia or something of that kind, where there is a contra-indication for ether. I have used nitrous oxid, but there is always the probability of increasing the pressure within the brain. I have never tried the violet rays. If they really sterilize the cavity I would be very enthusiastic.

LABYRINTHITIS—SECONDARY TO SUPPURATIVE OTITIS MEDIA

GEO. E. FROTHINGHAM, F. A. C. S., M. D.
DETROIT, MICH.

It is not my intention to enter into a long, technical discussion on the various phases of labyrinthitis, but rather to confine myself to that phase which is due to suppurative otitis media and mastoiditis.

Labyrinthitis, due to these causes, has been divided into four classes in the order of frequency in which they are met.

1. Diffuse Suppurative.
2. Circumscribed Suppurative.
3. Diffuse Serous.
4. Peri.

The invasion of the labyrinth usually begins with sudden loss of hearing and distressing vertigo which may be accompanied by nausea and vomiting. The vomiting is often persistent during the first day or two. Spontaneous nystagmus with quick movement toward the sound ear which is increased when the eye is turned in the direction of the quick movement. The vertigo is of a rotary type and is changed by the position of the patient. If standing, the patient finds that objects rotate around him. If he lies on his back, the objects assume more of the horizontal. Ataxia—Patient falls toward the diseased ear, that is to say, he falls in the opposite direction to the nystagmus. Pass pointing is invariably present during the active stage of vestibular irritation.

In making a diagnosis as to which class a case belongs, you will find no clear, sharp line of demarkation so that one can say with certainty this is a case of Diffuse Suppurative Labyrinthitis or otherwise. You will far too often find that a case which seems on the first examination to be a Peri Labyrinthitis, will in a short time appear to be a diffuse suppurative and when you have operated, you may find that it is really a case of circumscribed suppurative. And your diagnosis in each case may have been correct, for there is such an overlapping of symptoms, such a running of one into another in the four classes, that the correct placing of

a case in its proper class will be more a question of luck than of skill in diagnosing.

SUPPURATIVE LABYRINTHITIS

Suppurative labyrinthitis is one of the most dangerous lesions of the ear. It is, as a rule, secondary to purulent inflammation of the middle ear or mastoid. Some authorities claim that the infection may reach the labyrinth directly through the blood vessels, but I cannot accept this since there is no free anastomosis between the vessels of the middle ear and those of the labyrinth.

Infection of the labyrinth is often caused by erosion of the bone of the labyrinth wall, producing labyrinth fistula. The point of attack in the order of frequency is:

1. The Horizontal Canal.
2. The Oval Window.
3. Some point on the promitory.

Right here, I wish to emphasize the fact that injury to the region of the oval window due to careless surgery in the radical mastoid operation is more often the cause of an infected labyrinth than is generally recognized. The infection from a surgical injury to the oval window region spreads with incredible rapidity to the brain and meninges.

In cases of middle ear disease, where cholesteatome is present, there is much more danger of the extension of the inflammation to the labyrinth. This may be accounted for by the blocking of the discharge by the cholesteatome and in my opinion, where this condition exists, a radical mastoid operation is indicated without delay.

During the past year, there have been a number of cases of meningitis which can be attributed to acute mastoiditis, although I have heard the claim advanced that the mastoiditis and the meningitis were engendered simultaneously. These cases were the aftermath of the flue. Many times there were no visible symptoms of mastoid involvement and it was the X-ray that showed the trouble. In other cases neither symptoms nor X-ray indicated mastoid trouble. In still other cases, the only difficulty seemed to be in stopping the discharge, which refused to yield to treatment, either increased or remained stationary, but there was an extension of the disease to the labyrinth. The outstanding feature of these cases was the rapidity with which the disease of the middle ear extended to the mastoid and the equal rapidity with which the mastoid cells broke down, even with free drainage. This would indicate an infection of extraordinary virulence.

In my judgment, based on cases I have seen, in cases of this kind, we should not wait for the development of positive symptoms, but at

as early a time as possible, do a simple mastoid operation and thus prevent the infection spreading to the labyrinth. Delay in operating in these cases of virulent infection may leave the way open to meningitis.

CIRCUMSCRIBED SUPPURATIVE LABYRINTHITIS

Those cases of labyrinthitis caused by necrosis, producing fistula of the semi-circular canals offer much more favorable prognosis than those coming from infection through the oval or round window or through the promitory, which fact warns us against careless surgery in the neighborhood of the stapes and oval window.

Circumscribed labyrinthitis occurs, when the semi-circular canals are involved and, as a rule, when the condition is due to fistula. This is explained by the fact that it is a gradual process with more or less sub acute inflammation, thus allowing time for inflammatory adhesions to form and block off the extension of the supuration. I have often found, on operation, a fistula of the semi-circular canal, when the examination gave no positive test. The exudate or granulations may cover and block the opening sufficiently so as to prevent enough pressure being brought on the canal to give a positive sign. Circumscribed labyrinthitis, in my opinion, never occurs, when the infection takes place through the window or cochlear and infection from these sources always means a diffuse labyrinthitis.

DIFFUSE SEROUS LABYRINTHITIS

Diffuse serous labyrinthitis cannot be diagnosed during the acute stage from that of diffuse suppurative. The symptoms are identical. It can only be classified in its later stages, where it differs from the suppurative form in that while in the suppurative, there is complete paralysis of the vestibular apparatus, in the diffuse serous, the vestibular and cochlear functions may return wholly or in part.

PERI-LABYRINTHITIS

Perilabyrinthitis is a word used to describe those cases in which an inter labyrinthine congestion is produced by inflammation of the bone structure, surrounding the labyrinth. This condition may develop into a diffuse suppurative—a circumscribed suppurative or a diffuse serous. All four classes show identical symptoms with this single difference that in the case of perilabyrinthitis, the symptoms take a much milder form. As ear conditions improve, the hearing and vestibular reactions return and may come back to normal. Should there be no intracranial complications, the disease runs a characteristic course—vestibular irritation subsides after four or five days, the tempera-

ture which never rises above 103 lowers with the vestibular improvement.

I wish to call your attention to a few tests that are quite important in the differential diagnosis of physiological nystagmus and vestibular nystagmus. Irritation of a single semi-circular canal produces nystagmus only in its own plane. In acute suppurative labyrinthitis, the invasion almost invariably involves all of the semi-circular canals and cochlear, so that the nystagmus rarely corresponds to the plane of any single canal, but is rotary in character. This point is of great help in determining whether we have a condition due to pressure or one of inflammatory invasion. If due to pressure, the nystagmus is in one plane, while in suppurative invasion, more than one of the three semi-circular canals is always involved, and the nystagmus will be rotary in character.

Physiological nystagmus has also a rotary character, but can be easily differentiated from the nystagmus of labyrinthine disease. Physiological nystagmus is present, when the eyes are turned strongly to one or the other lateral directions, but it changes its direction according to the position of the eyes and is unaccompanied by any subjective symptoms. Spontaneous nystagmus due to labyrinth inflammation in the most active stage is constant, it is exaggerated, when the eyes are turned in the direction of the quick movement. It is present in any position the eyes are in, it is increased, when the eyes are turned toward the quick component and in active stage is accompanied by vertigo and ataxia.

The vertigo and ataxia of labyrinth disturbance is always accompanied by some spontaneous nystagmus and is increased, when eyes are turned in the direction of the quick movement. They are also influenced by the position of the head. When we have vertigo, not accompanied by nystagmus and not influenced by the position of the head, it is not likely to be the result of vestibular irritation.

The use of the caloric test, on the diseased ear may do harm and I cannot see that it is of any special use in diagnosis, when the general symptoms are as marked as they are in acute labyrinthitis. When the vestibular symptoms subside and the disease lapses into a quiescent stage, then the turning and the caloric tests will help in making a positive diagnosis.

Some believe that the immediate labyrinth operation is warranted, as soon as labyrinth disease is diagnosed, while others are more conservative and advise waiting. Cases resulting from surgical injury, as a rule, require immediate attention, as infection admitted in this way spreads very rapidly. In my judgment,

no patient with a diffuse suppurative labyrinthitis should be subjected to operation, without a complete radical and labyrinth operation. In case of fistula, many patients are relieved by the radical operation without touching the labyrinth. Radical operations, especially where there are labyrinth involvements, call for the utmost care. There should be no jarring, for even with the lightest hand, there is great danger of converting a congestion of the labyrinth into an acute inflammatory process.

The history of four cases which I submit herewith will emphasize the points I have tried to make.

CASE No. 1—MASTOIDITIS WITH ACUTE DIFFUSE SUPPURATIVE LABYRINTHITIS

C. S. H. Male, aged 60 years. Saw the case Feb. 1917. Patient had been suffering from severe pain in the left ear for two days. Complained of dizziness and nausea. Spontaneous nystagmus to the right. Marked bulging of tympanic membrane. Slight tenderness over mastoid. Temperature 100 3-5. Normal fundi. Pupils reacted normally to light and accommodation. Paracentesis was made. Bloody serous discharge under pressure. Day following operation, condition of patient much improved. Had had a good night. Free purulent discharge from left ear. Patient still complained of being dizzy. Slight spontaneous nystagmus. Hearing left ear—zero. Tuning fork—right not heard on left. X-ray showed, right, clear pneumatic cells, large lateral sinus. Left, showed partially pneumatic mastoid cells. Some evidence of infiltration. No evidence of destruction of the septa. First degree mastoid.

Patient continued to improve. Discharge gradually stopped and opening in tympanic membrane completely closed. Hearing did not return. Tests proved dead left labyrinth. Patient continued in good condition, attended to business until the last of March. Complained of severe pain in left ear, headache, nausea and vomiting. Was unable to walk without assistance. There was marked nystagmus. Eyes showed slight blurring of discs. Marked tendency to fall to left. Paracentesis made. Slight serous discharge obtained. Second X-ray showed on comparison with first, slight increase of the cloudiness in the left mastoid, indicating increase in mastoid conditions. Patient sent to hospital. Following morning showed symptoms of meningitis and blurring of outlines of disc of both eyes. Complete radical mastoid and labyrinth operation was done. Mastoid and labyrinth showed purulent infection. Patient died April 11 of purulent meningitis.

The question arises, had there been a complete radical mastoid and labyrinth operation performed at the outset (despite the lack of indications) might the meningitis have been prevented? This is a case which confirms my belief that where there are indications of mastoid and labyrinth involvement, a radical operation on both without delay is indicated.

CASE No. 2—MASTOIDITIS WITH CIRCUMSCRIBED LABYRINTHITIS

J. B., male, age 30. Examined July 1919. Patient had had discharge from left ear at intervals since he was 14 years old. Large polypus removed from left ear in 1914. For past two days, patient had been suffering from severe pain, dizziness and nausea. Marked spontaneous nystagmus.

Unable to walk without assistance. Right ear normal. Hearing normal. Left ear, large perforation of tympanic membrane. Granulation tissue. Foul smelling discharge. Temperature 100 2-5. Heart and lungs negative. No symptoms indicating fistula. Nystagmus increased, when patient looked to right. Hearing zero. Falls to left. Normal fundi.

Radical mastoid operation July 6. Middle ear and mastoid filled with granulation and with cholesteatome. Fistula of horizontal canal, covered with granulation. Discharged from hospital July 25. Good condition. Patient now in good condition—ear completely healed—dead left labyrinth.

In this case there were no indications of the fistula which on operation was shown.

CASE No. 3—(Peri Labyrinthitis)—CHRONIC MASTOIDITIS WITH PERI LABYRINTHITIS

D. P., age 8 years. Examined Nov. 6, 1921. Heavy discharge from right ear for past three years. Attacks of dizziness, nausea, pain in right ear for past two days. Pupils react normally to light and accommodation. Normal fundi. Nose and throat negative. Tonsils had been removed. Tongue rough and grooved. Few decayed teeth. Heart, chest and abdomen negative. Inguinal glands marked enlarged. Analysis of urine specific gravity 1015. Negative as to albumen and sugar. Wassermann negative. Slight swaying to right. Spontaneous nystagmus to left. Fistula tests negative. Hearing 0 for watch and voice. Webber to left. Reflexes normal. Ears, right, marked drooping posterior wall. Large perforation of lower part and small opening at upper part of tympanic membrane. Foul smelling discharge. Tuning fork to left. No tenderness over mastoid. Hearing left ear normal.

Radical mastoid operation performed Nov. 26. All cells filled with pus and granulations. No exposure of lateral sinus or dura. Marked necrosis of bone about semi-circular canals. No fistula found. Culture, no growth. Discharged Jan. 26, 1922. Complete recovery made. Tuning fork to right and labyrinth tests give normal reaction. Hearing moderate, loud voice at 5 ft.

DISCUSSION

DR. B. N. COLVER, Battle Creek: In recent statistics it was found that in 96 cases only 81 came from chronic otitis, 10 from subacute, and 5 from acute. It would seem therefore that the type is diffuse suppurative and that there probably is no true suppurative localized variety except following chronic cases. In other words, the acute conditions are diffuse rather than localized. Of course the diagnosis of any type is not easy at the beginning; you can tell better after it is over what you did have.

The question when to operate is certainly very important. It seems to me the conclusion drawn by the Doctor in his paper that operation on the labyrinth is only indicated when we have intra-ocular symptoms rather than labyrinthine symptoms is correct. An operation has been suggested for acute suppurative labyrinthitis, especially those cases that are postoperative, where owing to traumatism the infection passes through the labyrinth and internal auditory canal. This is to pass straight through the internal auditory canal and in that way get wide drainage of the submeningeal spaces. It is much more simple than the Neumann operation, the only objection being that the seventh nerve is practically always destroyed; but in those cases it is of course a question of life or death.

DR. GEORGE E. FROTHINGHAM, (closing): I do not feel that the calorific test is necessary in the diagnosis of the acute type of case. I think it often does more harm than good.

THE PROTECTION OF HEALTH THROUGH PERIODIC MEDICAL EXAMINATIONS*

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NEW YORK CITY

For the past several years it has been increasingly evident that a limit in the effectiveness of the public and private agencies dealing with preventive medicine was approaching and it is now appropriate to consider more particularly the ways in which the practitioners of medicine can make their next important contribution. The subject of the discussion I would offer you is the protection of health through periodic medical examinations.

In the subway cars in New York one may read the following advertisement: "Your body is a wonderful machine. You own and operate it. You can't buy new lungs and heart when your own are worn out. Let a doctor overhaul you once a year." This was issued by the Queen's County Tuberculosis Association.

The following resolution was passed by the House of Delegates of the American Medical Association in St. Louis:

"Whereas, the value of periodic medical examination of persons supposedly in health is increasingly appreciated by the public, it is recommended by the Council on Health and Public Instruction that the House of Delegates authorize the Council to prepare suitable forms for such examinations and to publish them in the Journal of the American Medical Association, and that the county medical societies be encouraged to make public announcement that their members are prepared and ready to conduct such examinations, it being understood that the indigent only shall be examined free of charge and that all others are expected to pay for such examination."

Still other resolutions of similar nature come from the Rotary Clubs:

"Resolved, That this 1922 Conference of the Rotary Clubs of the Third District in session at Trenton, N. J., hereby respectfully request the Board of Directors of the International Association of Rotary Clubs to recommend that all Rotary Clubs make earnest endeavors to see that adequate provision is made for the early physical and mental examination of the boys whom their boys' work committees serve, and for the proper treatment of the physical and mental defects found."

"Resolved, That this 1922 Conference of the Rotary Clubs of the Third District in session at Trenton, N. J., hereby respectfully requests the Board of Directors of the International Association to designate the first week in October, 1922, as International Rotary Health Week and ask that every Rotary Club devote its meeting that week to a report of the extent, the need for the earlier diagnosis of and the public and private measures that may be taken to lessen materially the increase in the Diseases of Adult Life that cause the death of so large a number of Rotarians every year."

The National Health Council (including in its membership the eleven most influential vol-

unteer public health agencies) has arranged for a special health program on December 8, 9 and 10 of this year, to spread throughout the country knowledge of the value and necessity of the periodic examination of healthy people by their private physicians.

Let us consider what has been happening to bring all this about, what we are at present doing in the way of applying in medical practice the principles suggested, and wherein lies the opportunity to meet the public's growing need, by services which the medical profession alone can provide.

I would like to call your attention to the fact that the Official Public Health Services of Nation, State and City in the past have been largely devoted to providing protection, as by control of water supply, sewage disposal, pasteurization of milk, and isolation of sick people in the communicable stage of disease. They have offered vaccination against smallpox and typhoid and nowadays more and more against diphtheria.

Private Health Agencies latterly have arrived at a more or less common policy, finding that the special objective of each can be reached only by a few fundamental services which depend upon early accurate medical diagnosis and the personal interest of each individual of a community or family.

Carrying the individual through the life span, let us see what measures should be, and can with advantage be put into effect. At present through baby stations and prenatal clinics, a mother is expected to come for examination not later than the fifth month of pregnancy, and the supervision of the expectant mother is carried out until the time of delivery. It has been found that the death rate for mothers from causes connected with pregnancy and child birth may be reduced 50 per cent, and that the death rate of infants from causes due to prenatal conditions can be reduced 50 per cent, while stillbirths are reduced 35 per cent by prenatal, medical and nursing supervision. Following delivery, about half of the babies that are born in the large cities are now supervised at infant welfare stations for the first year or two of their lives, and it has been largely through such education of mothers that the death rate of infants has been reduced.

We would say, then, that if we were planning a service for maternity and infancy we should wish the mother to report once every two weeks in person to her physician, or through a nurse, during the last five months of pregnancy, and bring the baby for a medical examination monthly for the first year of childhood and once a year for the first six

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years. In New York city it costs the Health Department about \$25.00 a year to provide such supervision for an infant under one year, and the Maternity Center Association about \$15.00 to give proper prenatal supervision to an expectant mother.

What happens between two years and school age? But a small fraction of the children receiving health supervision up to the age of two have an annual medical examination between two and six, so that parents may learn what has happened to their children, as they have passed through the various sicknesses of this particularly vulnerable period of life. The highest death rate from the acute communicable diseases of childhood occurs between two and five. We have usually considered this a time of freedom from supervision, but we are paying the penalty by having children arrive at school age commonly suffering from undetected or unremedied defects, many of them sequellae of minor infections. We find them in a condition unfit to attend school. We require them to attend school, but they are often not fit to learn until their physical defects have been remedied. At school there is often provided at least an annual inspection if not a complete examination. Between the ages of six and sixteen, school children generally have a medical examination at least three times, and more frequently a brief inspection carried out by nurses to detect the minor defects of development, nutrition, and infection. There would be no need of this supervision by the school service or health authorities if each school child were taken annually to his family physician and the defects discovered and corrected under his direction.

You will recall that the laws of some states require children entering industry to be free from certain serious physical and mental defects. They must have their sight and hearing, heart and lungs in reasonably good condition to spare them the dangers that occur in many trades and factories. These examinations for working papers for children under sixteen wishing to enter industry serve a useful protective purpose. Public service and often private employment requires an entrance medical examination and some times an annual re-examination of all employees. After the age of forty-five it is more and more a custom to have an annual medical examination, and not only among those who wish to obtain insurance policies. Many people who have had some warning of disability, the diabetic, the obese, those with high blood pressure, women during the menopause, not uncommonly consult a physician once a year for a comprehensive exam-

ination and guidance in the manner of life, but this group is still extremely small.

In the aggregate those who receive some periodic preventive medical supervision represent a considerable proportion of the population. The large dragnet of life insurance examinations discloses the need for more frequent medical examination of adults. Similarly the annual medical examinations in the army and navy indicate the extent of remediable defects which are commonly overlooked and their correction neglected.

Organized labor has prepared to meet just exactly this need. One instance is the joint Board of Sanitary Control in New York which has representatives from all the needle trades and provides for a medical examination of all their members once a year. They find that their greatest difficulty and cause of loss to wage earners is sickness that can be prevented by proper medical examination and advice. Two important experiments in a general public service of periodic examinations of those apparently in health have been undertaken by the Boston Dispensary and by the Academy of Medicine of New York. Of the first four hundred presumably healthy people who passed through the hands of the physicians of the Boston dispensary, 77 per cent were found defective in some way. The applicants believed they were in perfect health, but thought there would be an advantage in having a medical opinion to that effect, or their conviction confirmed as to their state of health. These people were all of the working class, in moderate circumstances and their livelihood depends entirely upon their health. There were found 77 per cent with defects of such degree as would limit their life or health span, or bring them into the class of dependents at an early age. The defects discovered were what one might expect—tuberculosis most common, cardiac disease next in frequency, malnutrition and serious defects in digestion being among the other large group.

The New York Academy of Medicine through its dispensary development committee, started three small stations, entirely apart from dispensaries, for health examinations. The first four hundred applicants showed the following. Only 6.4 per cent of the people who applied were found to be free from gross physical defect of important degree sufficient to interfere with wage earning. 19.7 per cent showed evidence of some active infectious disease, tuberculosis, venereal disease, rheumatic infections or secondary involvement of the heart. Fourteen per cent showed constitutional defects, malnutrition, excess or de-

iciency. Nineteen per cent showed vasomotor and chronic cardiac disease; 83.9 per cent showed digestive and dental defects. Forty-nine cases among the first four hundred showed an extreme and chronic constipation, most of whom can be relieved by correction of errors of hygiene, diet, exercise and the use of water. Twelve and a half per cent had defects of vision; 6.5 per cent showed defects due to errors of function of the ductless glands. Here is a great mass of undetected serious diseases and defects in people who were living lives that they would say were healthy and normal simply because they have not been sick enough to go to bed, and do not know what health is, and were never accustomed to go to a physician unless something caused them pain or stopped their work. It is to search out these submerged disabling sicknesses that we are aiming. These people are not frightened by being told of these disabilities. They appreciate a thorough medical examination. They take pains to follow advice, and they show prompt benefit as a rule. Very rarely do we find among these applicants any who have had an examination of the heart and lungs upon the uncovered body. They have been treated generally after incomplete medical examination—upon symptomatology alone rather than after history and physical examination. The rule practised at these examining stations is that all examinations shall be at least as thorough as if we were seeking for disease. We are seeking for health and variations from it. We wish to learn if those who apply are as free from disease as they innocently believe and hope.

What does this all cost? Up to the present it has been found impossible to provide this service by competent physicians for less than \$5.35 a patient. There is the room for equipment, with sufficient light, warmth and quiet, there is the physician and what he carries in his kit bag, the few instruments of precision for examination of the body orifices and the special senses. Sight is tested by the Snellen chart, hearing by the watch test, blood pressure is recorded. The urine is tested for sugar, albumin, reaction and specific gravity. The time for each examination is between forty-five minutes and an hour. This includes the time necessary to verify the patient's statements in the history, and to make sure the patient understands the advice given and the reasons for taking action.

These are not clinics. They are not equipped for treatment of disease. They are examining stations for the recognition of disorders of structure or function which are significant causes of disease.

Up to the present time we physicians have

been sought by the public; the public has come to use and said, "I have a pain, an ache or a bleeding. I have some incapacity or weakness. Will you please set me right? Or, they will say, "I am lame; I am blind, or I have a fever." They come with a specific complaint and ask to be made themselves again. We have awaited only the appeal of those who recognize that there is something wrong. We cannot meet our obligations and opportunities and do only this. The public has been shown the economic necessity, the financial advantage, the personal safety, that comes from knowing whether they are as healthy as they believe themselves to be. They are beginning to realize that if a physician is worth his salt, he should be able to recognize the evidence of sickness long before a non-medical person can do so. If not, why do we claim ability to detect tuberculosis at so early a stage that we can save most of the cases? We have made advances in the education of the public in tuberculosis until patients recognize the importance to themselves of loss of weight, persistent indigestion, colds, coughs and unexplained languor and malaise. People already come in large numbers to clinics for examination on appearance of suspicious symptoms. About 70 per cent of patients examined at the tuberculosis clinics in New York city are found not to be suffering from tuberculosis.

The student and physician have very little opportunity, except in insurance work, to separate the presumably healthy with no subjective symptoms from the obviously sick who are complaining of difficulty or discomfort. It seems to me, we have got to accept the public's growing demand for service; we should cultivate it, prepare for it, and supply it. The dental profession has gone far in this direction and with great benefit to their patients. They urge and practice annual or semi-annual routine cleansing and inspection of the teeth of their clients. There are very few people of any means who do not go at least for cosmetic purposes to dentists to have their teeth cleaned once or twice a year. There is much of economy and prevention in the custom. We do not hang our lungs on our coat sleeve; therefore, if they are diseased they are not obviously offensive. There are a good many kinds of dysfunction, of error in growth and structure which develop insidiously, but are easily detected if looked for and easily observed by some one alert to catch the early signs of disease. We should teach all people the value of calling on their family physician once a year for examination, however healthy they may believe themselves to be. We stated the need of a room for examination in every dispensary. I should like to see in each hos-

pital out patient service, or dispensary for diseases of the eye, ear, nose and throat, for general medicine and surgery, a room devoted to the diagnosis and protection of health.

It seems to me that the possibilities of administrative protection of community health have very largely reached their greatest results. I believe that preventive medicine of the future will come through the individual who personally selects a physician to see him as a patient. If a patient is not persuaded that his doctor has confidence in and believes in preventive medicine and will succeed better in keeping him healthy than by treating him when he is sick, we can hardly expect the public to pay out their good money to have a health officer give an impersonal service to the community as a whole.

It is the aim of the broad physician at present to encourage, to teach and develop in his own practice the habit of appointment for health examinations. Apparently healthy people generally need instruction as to the physiology of the human body, how to get along without the use of drugs; to cultivate the habit of regular bowel movements; how the child is going to increase in weight by living a child's life instead of the life of an adult. It needs more keenness and diagnostic skill to detect sickness of a grade unnoticed by the average individual than to name a disease which has already declared itself by manifest symptoms.

Evaluation of the degree of health and the teaching of health habits are as much the serious function of the practicing physician as is the treatment of disease. That is one of their responsibilities. You must see that the indigent as well as the well-to-do have this service. No physician in the United States declines to care for the needy in time of sickness. I propose to you that you will have much less to do in caring for the sick and dependent if you provide for them professional services to protect them against sickness.

Do you remember the story of the little boy at the public school who went to the principal and said, "Ain't I sick enough to get into the open air class?" Truly a child has to be pretty sick to get into the fresh air in our schools. If they are well they are expected to tolerate vitiated mechanically served air. If they begin to get peaked and look sick they may be selected for the privileges of a fresh air class. That is what we are permitting for many of our patients—we say, "When you are sicker so that you yourself are aware of it, I will take care of you." We are just waiting for the patient to say, "I cannot stand it any longer, you will have to do something for me." We must reach those who are going to be sick unless we warn them of the minor evi-

dences of disease and prevail upon them to adjust their manner of living to the indications.

Ask the members of your State Medical Association to note the number of patients to whom they have said, "I am sorry; if you had come three months ago, I could have surely cured you, and easily, but now it is too late to cure and the time of treatment will be long. If you had come when you had your first cough I would not have had to send you to a sanitarium for the treatment of advanced tuberculosis." "If you had come when you had early syphilis before there was evidence of paresis or central nervous system involvement, I could have done something for you." "If you had come when you first noticed the lump in your breast I should have been able to do something for what is now an incurable cancer already spread to distant tissues." Why do we wait for people to have polyuria weakness and loss of weight to find out that they have sugar in the urine?

These are the objectives that we have put before ourselves at the examining stations in New York:

1. To make medical examinations of persons of obviously ill, yet desirous of learning how to maintain their health or to increase their well being.
2. On the basis of the examination, where disease conditions are found, to direct the examinee to suitable treatment resources.
3. In each case not requiring definite treatment, to give detailed instruction in writing on needed modifications in modes of living.

Now, may I emphasize this "in writing?" The person suffering from acute pain will do what you tell him to do because he can't go on suffering that pain. But when you are dealing with an error of habit, a still mild and hardly offending error of nutrition, and your advice deals with the whole manner of living, exercise, diet, recreation, occupation, and you have to put into his hands some specific written directions as to what he is to do. Be precise in your directions and tell the patients just what they are to do and write it down so that they can read it over.

4. To supplement dispensary clinics by guiding patients not requiring medical treatment in modes of healthy living.

The nature of the work is, first, *general medical examination*. These examinations are fundamentally like those in the general medical clinic, but examinees receive in addition elementary sight and hearing tests and posture analysis. Proportional measurements are taken and muscle tests are made.

The attitude of the physician making the examination is one of making an appraisal of

health and vital capacities, rather than seeking only causes of special symptoms.

Second, the *instructions to the applicant*: The instructions include an interpretation of his physical condition and detailed suggestions as to needed modifications in his mode of living. This relates to his habits of personal cleanliness, his diet, his recreation, his exercise, his work, his interests and his rest.

As the instructions are not given to tide over some disease emergency, but serve as a basis for development, they must be in writing so that the applicant can give them careful reconsideration from time to time.

The mental attitude of the applicant toward medical service in coming to the health clinic is frequently the main difference in the selection of the case for this, instead of referring him to the general medical clinic. Physically he may be very like cases under care in a treatment clinic, but his approach to his health situation is one of seeking an understanding of his own condition as a basis for the conduct of his life rather than the acceptance of directions limited to the relief of some special condition.

The approach of the doctor in giving these directions is that of instruction and persuasion, rather than that of issuing definite commands which the actual presence of illness makes necessary.

The health clinic should be related to the department of general medicine in the same way as are the departments of the various clinical specialties.

I have this one appeal to make to you as physicians and that is that you will not be satisfied in the future as the majority of medical practitioners have been in the past who sit in their offices and wait until the people come with complaints and symptoms asking for treatment. It is time that the profession as a whole took pains to inform the public that a preventive service awaits them, as valuable as, and more certain than the service rendered to the sick. I see no reason why the county societies should not give public notice that their practitioners would prefer to prevent disease than to cure it. That it takes a higher degree of diagnostic acumen to recognize the early stages of disease than it does to put a label on a perfectly obvious clinical picture of sickness.

It is time that the general practitioner of medicine stimulated interest in periodic medical examinations on the part of his own patients so that he may practice preventive medi-

cine, by the use of his own diagnostic skill, in his own private office.

It should be the aim of the practitioner of medicine at present to encourage in his own patients, and teach them to adopt, the habit of an annual medical examination, with sufficient leisure for a careful consideration of the manner of the patients' lives and the adjustments that are required to develop better health, or at least to maintain it. On the whole the attitude of physicians towards disease, its detection and treatment has crowded out of their minds the capacity and habit of studying individuals to learn what are the variations from health from which they suffer and how health may be more complete and better safeguarded. The physiological point of view of the practicing physician has been sacrificed in the search for pathological explanation of conditions which have already been of sufficient degree to annoy the patient or rouse his fear of incapacitating sickness or even of death.

It is believed that medical schools, hospitals and dispensaries should offer opportunities to physicians to train themselves in what may well be called health examinations. Few physicians as they leave medical schools and hospitals know how to teach the average child or adult the simple laws of personal hygiene upon which the acquisition and maintenance of health depend.

With the constant reduction in disease as the result of the application of preventive medicine throughout the country, diminution in income of physicians from the care of the sick should be supplemented by the practice, more constructive and equally profitable to both patient and physician, of preventive medicine through the health diagnosis and hygienic advice.

I beg of you as a means of applying preventive medicine, as a means of giving better service to the community, to advertise the periodic medical examination of people who are presumably well, and to tell the people that it is as well worth paying for, as to pay for preventable sickness, and that you are capable of doing it; that the one best prepared to give health advice is the physician who knows the individual in sickness and in health year in and year out.

The place for the practice of preventive medicine is in the home, in the office of the family physician, and as the result of the same precise diagnosis in each individual case as is devoted to the diagnosis and treatment of disease.

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

VII.—PHYSICAL EXAMINATIONS (Continued)

JOHN SUNDWALL, Ph. D., M. D.

Professor of Hygiene and Director of the Department of
Hygiene and Public Health, University of
Michigan, Ann Arbor, Mich.

**"GET YOURSELF EXAMINED." "LOOK FOR
YOUR DANGER SIGNALS."**

Under these impressively warning captions the Life Extension Institute, under the able direction of Doctor Eugene Lyman Fisk, is carrying on its campaign for periodic physical examinations—the annual overhauling.

"Don't just shut your eyes and try to ride past them. The time to begin looking for danger signals is before the serious trouble happens. In most cases there are caution signals long in advance of the dangerous disease. The earlier these warnings are noted—and given attention—the longer, more comfortable and more useful your life journey will be," is the admonition of Doctor Fisk.

Up to the present time the Life Extension Institute has made approximately 225,000 physical examinations and the proportion of defects found in adults correspond to those tabulated in the previous issue of *The Journal*. The striking revelations of these physical examinations are that less than two per cent of all examined passed a perfect physical examination, and that ninety-eight per cent were found imperfect. These imperfections were graded into three groups—seriously affected, moderately affected and slightly affected. Furthermore, it must be borne in mind that approximately eighty per cent were not aware of the fact that they had defects. And precisely here comes in the inestimable value of the annual overhauling. Catch these non-cognoscible, slow-going, retrogressive or degenerative changes before they have reached the irreparable stages. This can be done only through periodic physical examinations.

Quoting from the Institute's excellent pamphlet, "The Possibilities of Hygiene:"

"There are few persons in America today who reach the age of forty sound and normal in every part of the body, especially if we include among abnormalities the minor ailments. The extent to which minor ills are prevalent among those who pass for 'well' people is not generally appreciated.

"Once we penetrate beneath conventional acquaintance we almost invariably learn of some functional trouble, such as impairment of heart, circulation, liver, kidneys, stomach; or gall-stones, constipation, diarrhea, or insomnia, neurasthenia, neuritis, neuralgia, sick headaches, or tonsillitis, bronchitis, hay fever, catarrh, grippe, colds, sore throat; or rupture, enlarged glands, skin eruptions; or rheumatism, lumbago, gout, obesity; or decayed teeth, baldness, deafness, eye ailments, spinal curvature, flat foot, lameness; or sundry other 'troubles.'

"These ailments, though regarded as 'minor,' should be recognized promptly and accepted as the signal that the person is moving in the wrong direction. There is no need for alarm provided this warning is heeded. Otherwise disaster is almost certain sooner or later to follow. The laws of physiology are just as inexorable as the laws of physics. There is no compromising with nature. No man can disobey the laws of health to which he has been bred by nature without paying for it—any more than a man can sign a check against his bank account without reducing the amount. He may be immediately bankrupt, and until he exhausts his account he may not experience any inconvenience from his great extravagance, but nature keeps her balance very accurately, and in the end all claims must be paid.

"The menace to the individual from insanitary conditions in his own body is far greater than from insanitary conditions in his community.

"Preceding most serious illnesses there is usually a long period of impairment. This breaking-down is frequently so slow and insidious that you do not realize its danger until well advanced, but from the very beginning it leaves signs that science can detect.

"There are thousands of people gradually drifting into chronic so-called incurable diseases. A man's whole future, and that of his family, may be

changed by the simple elementary precaution of a frequent, careful physical survey; a form of inspection which a man neglects for himself, but carefully applies to all important man-made machines."

DISEASES OF ADULT LIFE AND MIDDLE AGE

Every effort must be made, on the part of those interested in the health and welfare of the public, to promote adult hygiene. Already industry has discovered that human conservation among its employes is vastly more important than machine conservation. Hence, industrial hygiene has made rapid strides in our country. This program of the wage earners conservation must be expanded to include all adults, for it is the adult mid-period of life that is of greatest value to society and to our nation. The death rate at forty is nearly three times what it is at twenty. Regarding the diseases of this important mid-period, let us again quote from Fisk:

"Medical men and sanitarians derive more comfort from studying the death rates and vital statistics relating to infancy, adolescence, and early adult life, than from those showing the trend of mortality in middle life and old age. In the earlier periods of life tremendous gains in vitality have been made in the past quarter century. Trench after trench has been taken from such malignant enemies of childhood and youth as diphtheria, diarrheal diseases, typhoid fever, tuberculosis and even pneumonia, long a stubborn fighter. The lines of these foes have been steadily pushed backward, and their ultimate control seems probable.

"From full maturity to old age, death is chiefly caused by the breaking down or wearing out of the vital organs. Heart disease, apoplexy, paralysis, Bright's disease of the kidney, and cancer, are the enemies of middle life and old age. It is well known that cancer is on the increase, but not so well known that the death rate from diseases of the heart, blood vessels and kidneys has also heavily increased in this country during the past thirty years. In 1918, between the ages of 30 to 60, there were 124,000 deaths in the United States registration area from these degenerative affections, exclusive of cancer.

"This means that for the country at large, there is an annual loss of more than 150,000 citizens in the prime of life. That most of these deaths were premature and that 50 per cent of them could have been postponed many years by early warning and guidance is a conservative estimate.

"Against this class of disease, modern science has as yet waged no systematic and persistent warfare. The lines of attack are not so simple and direct as in the infectious and epidemic maladies. We cannot vaccinate an individual against heart disease,

thickening of the blood vessels, or kidney trouble. To protect a man against these maladies, we must study his personal needs, and perhaps remodel his whole existence.

"Nevertheless, distinct gains can be made in combating these maladies by following certain broad general principles."

"If a man asks you 'How shall I live in order to avoid these chronic degenerative diseases,' the general answer is, 'Temperance all along the line—in eating, drinking, working, playing and even in resting.' It is possible to 'rust out' on the one hand or to 'wear out' on the other.

"But what is temperance for one man may be excess for another. Hence the most important step, in protecting against degenerative maladies, is to have a thorough physical examination at regular intervals—at least once a year—so that life may be regulated to one's physical equipment."

ECONOMIC LOSS

We must be pardoned for referring so frequently to and quoting so extensively from Doctor Fisk and the Life Extension Institute. It happens that no other health agency in the world can speak with such authority on this subject.

During the past year the Institute made a very extensive and painstaking investigation for the Committee on the Elimination of Waste in Industry of the Federated American Engineering Societies of which Mr. Herbert Hoover was president. The report emphasizes the risk a man carries in not having his body periodically examined and the prodigious economic loss resulting from this neglect.

"The economic loss in this country annually from preventable disease and death is over \$3,000,000,000. \$1,800,000,000 of this loss is among the gainfully employed.

"The economic loss from the tuberculosis death rate alone is \$500,000,000 annually and \$26,000,000,000 for this generation figured on the diminished longevity.

"42,000,000 gainfully employed lose 350,000,000 days from illness disabilities and non-industrial accidents; 28,000 die from industrial accidents.

"500,000 working people die annually. At least one-half of this loss is preventable or postponable by proper medical supervision, periodic medical examination, health education and community hygiene.

"25,000,000 in the working classes have defective vision requiring correction. At least 25,000,000 have defective teeth and mouth infection; there are more than 1,000,000 with some form of tuberculosis; there are more than 8,000,000 with flat foot; more than 6,000,000 with organic diseases resulting mostly

from infection; more than 1,500,000 with venereal infection."

"These figures are derived from studies of individual groups, from insurance experience, from census records, from draft records, and there is experiential basis for the statement that this loss could be materially reduced and leave an economic balance in the working class alone over and above the cost of prevention of at least \$1,000,000,000 a year."

INCREASE THE HEALTH SPAN OF LIFE

According to insurance tables upon which premiums are based no one is supposed to live beyond ninety-six years of age. The traditional span is about seventy years and the expectancy of life at birth is now fifty-one years. Those who escape and survive the early hazards of life and live to be fifty may well expect to live another twenty years. This then is the life span. Unfortunately the health span of life which is represented by a sound, active and vigorous body and exuberant health is limited on the average to only ten years after maturity is reached. The health span, therefore, is from age twenty to thirty-one, "when the individual can tackle anything in the way of sport or work confident in his physical reserves." During the pressure of the recent war, Great Britain drew the line at forty-two for active military service. One of the objectives of Public Health should be to increase the productive health span of life from ten to twenty or even thirty years.

Our greatest instrumentality for achieving this objective is the *Annual Overhauling*.

DOES THE ANNUAL OVERHAULING PAY?

The answer is. It does. Let us quote from "The Nation's Health," on the value of periodic medical examinations.

"The most striking testimony yet offered to the value of periodic medical examinations has recently been furnished by the Metropolitan Life Insurance Company, which for more than seven years has been offering the life extension institute service without cost to its policy-holders. Approximately six thousand persons were examined under this plan in the years 1914 and 1915 and the after history of this group was observed up to November, 1920, for an average period of five and one-half years per person. The expected mortality for a group of the class and age concerned would have amounted to 303 deaths, but actually only 217 deaths occurred—a saving of 28 per cent.

"The number is small, but the difference is so marked that it cannot reasonably be attributed to

chance, and the company estimates that the sum of forty thousand dollars spent in these medical examinations has effected a saving in mortality in excess of \$126,000. Results of this kind should be of the greatest assistance in furthering the movement for systematic medical examination, which offers the only hope of effective control of the degenerative diseases of adult life."

This Company states that this little adventure in life saving has been a 200 per cent investment, (returns \$2.00 net profit for every dollar expended).

Assuredly, this may be regarded as a splendid tip for a good safe investment on the part of the average citizen.

IMMUNIZATION AGAINST DIPHTHERIA

In reference to diphtheria, as has long been the case in the control of smallpox, the medical profession is demonstrating that its function is not alone the treatment of disease, but its prevention. For diphtheria can be prevented, just as smallpox is—and by the same means, vaccination. There are minor differences, but the principle of immunization is the same. Natural immunity to diphtheria is largely a matter of age; it is a children's disease, though not all adults are exempt. Protect the children, and you protect the community. This is done, in a measure, by the use of anti-toxin, but not completely. Why should the child be allowed to take any chances at all? No one can foretell the virulence of a diphtheritic attack, and in waiting for developments a case of "sore throat" may turn out to be malignant diphtheria challenging even heroic doses of antitoxin to subdue it, or ending the life of the patient through delay and temporizing treatment.

Why not prevent all this when it can be prevented by the systematic application of the toxin-antitoxin mixture known as diphtheria prophylactic? Every physician should take an interest in this subject, we believe, and extend, so far as his influence goes, the protective barricade against the spread of diphtheria.

The standardized toxin-antitoxin mixture is supplied in packages suitable for private and institutional practice by Parke, Davis & Co., who also offer appropriate literature to inquiring physicians.

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SEPTEMBER, 1922

Editorials

MEDICAL SCHOOLS COMBINED AT OHIO STATE UNIVERSITY

Ohio State University is the last of state universities to discontinue the maintenance of a separate school of Homeopathic medicine. By action of the board of trustees on June 19th, the two medical schools at Ohio State were amalgamated. According to the action of the trustees at this meeting two separate chairs in Homeopathic medicine were to be maintained in the new combined school of medicine, similar to the new arrangement at the University of Michigan. By a subsequent action, July 11, the Board of Trustees eliminated all Homeopathic teaching, thereby abolishing the proposed two chairs established at their previous meeting of June 19th.

No independent Homeopathic medical schools now are to be found in connection with universities. Only three independent Homeopathic institutions now exist in the United States. These are the Hahnemann Medical College and Hospital of Philadelphia (Class A), the New York Homeopathic Medical College (Class B), and the Hahnemann Medical College of Chicago (Class B).

The Homeopathic Medical School at Ohio State University was endowed for certain phases of its activities. There is now some doubt as to the disposition of these funds since the combination has been affected. Especially

is this true of \$150,000 of General Motors Stock, given by a prominent Dayton citizen. It is thought that the funds will be returned to the donors. In view of this endowment, one may be certain that the action of the trustees at Ohio State in amalgamating the Homeopathic school with the regular school was attended with even greater difficulties than was the case at some of the other universities where the coordination of the two schools has been recently made.

In recent years the Universities of California, Iowa and Michigan have combined their Homeopathic Medical schools with the so-called regular medical schools. In these three institutions, however, separate departments or chairs are maintained in the combined medical schools for the purposes of teaching Homeopathic Materia Medica and Therapeutics, for it is along these lines that Homeopathic teachings differ materially from that in the regular medical schools.

The University of Michigan will maintain two chairs of Homeopathic materia medica and practice. Naturally, it is the desire of the regents that every opportunity be given Homeopathy to conserve and to demonstrate the truths of its particular claims relative to drug actions and to treatment. Assuredly, this arrangement will offer every opportunity for Homeopathy to prove its claims and any contributions which it has made and may make to medical truths are bound to be accepted and become standard procedures in the practice of scientific medicine. These departments will grow and flourish in so far as they demonstrate their claims and produce, through research and investigation, new scientific medical truths. Those who are convinced as to the truths and efficiency of Homeopathic medical practice need have no fear whatsoever as to the welfare of Homeopathic medicine at the University of Michigan. The truths in medicine must prevail.

Evidently the trustees at Ohio State University feel that the alleged truths of Homeopathy will survive and flourish even without the maintenance of separate chairs. They no doubt feel that in as much as the spirit of the University is truth, the truths of Homeopathy will survive and grow in the combined scientific school of medicine.

In times past, before the various sciences now making up medicine were discovered and evolved, it was but natural that several schools of medicine should have developed. Then the practice of medicine was largely empirical and as a consequence several systems of medical observances arose, chief among which were Allopathy and Homeopathy. Both of these systems served well their day. Furthermore,

both have contributed much to the advancement of the medical sciences and the truths they taught are the priceless possessions of medical practice today.

Since the origin of these two schools of medical thought and observances, one by one, the medical sciences have been evolved. The workers in these sciences have been concerned only with finding out new truths and teaching these truths. Scientists are not biased and influenced by tradition. In no line of human interest and endeavor, is more painstaking care and observation exercised than in scientific research. One may be certain that the academic life of a scientist who is not accurate in his observations and deductions will be short indeed. No quarters are given to the pseudo-scientist. Truth alone will assure him respect and position, for truth will prevail.

The function of the university is to serve as a repository for all truths. It is the province of the university to teach these truths to succeeding generations of men and women. Furthermore, the university must through research and investigation discover and evolve new truths. In fact, the spirit of the university is search for truths.

One need not feel for a moment that as a consequence of the recent actions taken by the governing bodies of state universities in combining their medical schools into one scientific school whereby all the facilities and all the staff may be concentrated on teaching and advancing scientific medicine, that Homeopathy, Allopathy, or any other genuine system of medicine which arose during the empirical days before the medical sciences were evolved, have been annihilated. On the contrary each should be proud of its past contributions and each should feel that the truths it set forth will carry on and flourish in the new scientific schools of medicine. Medical truths there are and must be. The practice of medicine must become as scientific as is the practice of chemistry or any other science. There is no homeopathic chemistry nor can there be an allopathic physics. Likewise, there can be no differences in medical practice when medical truths are fully understood.

Let us all forget our traditional empirical differences and designations. Hereafter, let us all stand for scientific medicine. There is a vast unexplored field of medicine before us. In fact we are only at the threshold of medical truths. Assuredly, our progress in discovering these new truths and exploring this vast field will be rapid indeed when all interested in medicine will pool their efforts for the purpose of finding out and teaching medical truths.

All medical truths will survive and flourish in our universities.

CANDIDATES FOR THE LEGISLATURE

The legislature convenes in January. Legislation affecting doctors and the practice of medicine and problems pertaining to the public's health will be considered. Bills upon these topics will be introduced. Some of them will be desirable while others will be most undesirable on account of their viciousness. The cults will seek recognition and will be out in force to gain the ends they aspire to. What are you doing in your county to forestall undesired legislation?

We urge that the officers of every county society take such steps as will enable them and their members to interview candidates, obtain their opinions and views in regard to medical legislation and then support those candidates who will go on record as favoring legislation that is for the public good in the conservation and protection of the people's health welfare. This support consists of more than your vote. It means that every doctor should enter into the election campaign and work. Vigorously oppose the undesirable candidate. Vigorously support the desired candidates until the poles close. When you have secured his election then keep in touch with him and see that he remains fully informed in regard to the situations that arise and which menace you and your profession as well as the health of the people.

Such activity is imperative. The responsibility of engaging in such political activity rests upon the officers of every county society. The time is at hand when we as an organized profession must manifest our interest and record our influence to combat the schemes of those who seek to overthrow present laws and who strive for new laws designed for selfish purposes. We sincerely hope that County Officers will not be negligent in this matter. We trust that steps will be taken that will assure the election of dependable, public spirited candidates. Get busy in your county now.

SPECIALISTS FOR COMMUNITIES

The special branches of medicine and surgery require special trained men, who devote their entire time to such specialized practice. This is recognized, as essential in order that the patient may receive the greatest good and the best end results that are attainable.

While recent years have brought forth a host of specialties, there are among the number a certain few more prominent and valuable. They are orthopedics, dermatology, pediatrics, ophthalmology and oto-laryngology. The field of the latter is fairly well protected. In ortho-

pedics, pediatrics and dermatology, a dirth of properly trained men exists.

Our rural and outlying districts are ill supplied because the right kind of trained men customarily locate in our cities and medical centers and are able to secure a large practice. To receive their services the patient from the outlying district must needs journey to the city. This entails many difficulties and increased expense. We believe the time has come when this should be corrected and provision made so that there is available a competent, trained man in every community. The following plan is advanced:

Let the doctors of a county or several adjoining counties, convene and determine what type of a specialist is most needed. Then let them select one from among their number and say as well as pledge to him: "If you will go and prepare yourself for this special line of work and return to this community, we will refer these cases to you and co-operate in establishing you in this specialty." Such a plan will be inducive to a progressive man and will bring to the community a type of service that is lacking.

In discussing the plan with Dr. Cabot, dean of the Medical Department of our university, he endorsed the plan. Dr. Cabot went further and stated that he would make provision to take on and train such men at Ann Arbor. Further that he would arrange that such a man would receive a living salary during his course of training at Ann Arbor. That he would be glad to take on a few such men this fall.

With such an opportunity available, we urge that the subject be given serious thought and that you survey your community with the object of securing for it specialized services in certain branches of medical practice.

SPECIAL MEETING OF THE COUNCIL

At the request of President Dodge and several members of the Council, Chairman Seeley has called a special meeting of the Council to meet in Ann Arbor at the Michigan Union at 2 P. M., on September 20, 1922. The object of this special meeting is to enter into conference with the president of the University of Michigan, the director of the University hospital, the dean of the faculty of the medical department of the University of Michigan, the chairman and members of the committee on Civic and Industrial Relationships, and the chairman and members of the committee on Legislation and Public Policy. The conference will concern itself with discussion of a proposed plan for the establishment of a Nurses' Training School in connection with the University hospital and further to give expression

to the sentiments of the medical profession of the state in regard to such a plan of nurse training.

Such other business as may properly come before the Council will also be considered at this meeting.

Signed: A. L. SEELEY, Chairman.

Attested: F. C. WARNSHUIS, Secretary.

UPPER PENINSULAR MEETING

August 9th and 10th was held at Houghton, Mich., the 26th Annual Meeting of the Upper Peninsula Medical Society.

This society is in reality a District Society of our State Organization, and has been a live wire for many years. The meeting at Houghton was one of the best that has yet been held, was largely attended by its members and entertained as guests a large delegation from lower Michigan. Among the guests who participated in the program were Dean Lewis of Chicago and Guy L. Keifer of Detroit. There were also present Drs. Guy Connor and B. D. Harrison of Detroit; Dr. J. D. Brook of Grandville; Drs. C. C. Slemons and B. R. Corbus of Grand Rapids; Drs. R. M. Olin and C. C. Young of Lansing and the president of the State Society. The scientific program was most interesting, and the entertainment furnished was well up to the standard previously set by our Upper Peninsula brothers.

A banquet was tendered to the members, visitors and their ladies at the Houghton club, Wednesday evening. Dr. Jack Moore entertained the lower Peninsula delegation Thursday noon at a luncheon at his bungalow, which is beautifully located on Keeweenaw Bay. The ladies were entertained Wednesday afternoon at a bridge party at the Onigaming club. Thursday afternoon many members and visitors enjoyed play upon the beautiful golf links of the Portage Lake Golf club.

One circumstance marred the perfection of the meeting and lessened the pleasure of the participants. The Nestor of the Upper Peninsula Medical Society, the one among them most beloved, an ex-president of the State Society, Dr. A. I. Lawbaugh of Calumet, was known to be sick in the Presbyterian Hospital in Chicago, while Mrs. Lawbaugh was also ill in the Laurium Hospital. Flowers were sent to Mrs. Lawbaugh and the State Society President was pleased in behalf of the State Society to join with the committee in sending a message of condolence to Doctor Lawbaugh—thank him for the magnificent paper he had contributed to the program of the meeting, and wish him a speedy restoration to health.

Still another cloud hung over the meeting, it being the recollection of sudden death last

spring of Doctor Turner, a resident of the town in which the meeting was held, and who would have been now president of the State Society if he had been spared to us.

Many of the visitors made the event the occasion of an automobile tour over the beautiful roads for which "Cloverland" and the Copper Country are famous. The writer and his family returned through Wisconsin and developed much enthusiasm over the beauties presented along Wisconsin's famous state road, No. 15, which passes through some of the most beautiful cities of the state and presents a paved surface to travel from a point north of Green Bay to the city of Milwaukee.

You of the lower Peninsula who really desire to know your state, cannot hope to do so unless you make an auto tour across the straits, see the surprising beauties of the country and meet the open handed hospitality of the medical profession you will find there.

W. T. DODGE, M. D., President.

EDUCATIONAL ADVERTISING

Upon several occasions we have commented upon the desirability of some form of educational advertising that will enlighten the public in regard to health matters and skilled medical service and which will counteract the quack claims and advertisements. In the last issue of the Harper Hospital Bulletin we read the following:

"Other than referring to the directory of the American Medical Association, there are no means available to the public, in selecting a physician or surgeon, other than asking your friend or neighbor." In another part of this Bulletin, a framed advertisement, appears and is placed here as a suggestion that it be used in the daily papers. "What objections have you to it and what suggestions have you to offer?"

The following is the wording of the suggested advertisement:

TO THE PUBLIC

Remember that there are reputable Physicians and Surgeons thoroughly trained in their profession—whose skill covers all fields advertised by the Quack. Inquire about them at reputable hospitals.

This advertisement is neatly set up in ten-point display type and forms an attractive make-up. It arrests attention and has a punch as well as a selling power, thus meeting the rules of advertising.

We believe that such an advertisement run in the papers of the state will accomplish great good and will defeat the type of quack ads that are published. Bring up the subject at your

next meeting and place the advertisement in your local paper. There is no reason why our societies should not conduct such an educational series of advertisements for educational purposes.

THE ASPIRATION OF STEARATE OF ZINC IN INFANCY*

Since the recent report of Heiman and Aschner of the aspiration of stearate of zinc by infants it may not be amiss to remind the profession of the grave danger of the use of stearate of zinc in the nursery as a dusting powder. Since their report there have been several other accounts of similar fatalities. The question undoubtedly arises whether such a substitute for talcum powder should be permitted to be sold at all and if sold whether or not the container should not be modified to prevent such accidents.

Certainly it is incumbent upon the practitioner to warn parents and nurses of the urgent danger of leaving an open can of stearate of zinc near an infant.

The ease with which an infant may aspirate this powder is due primarily to the way in which the container is made. It is a cylindrical box which has large perforations in the lid, with a sliding cover, to permit the powder to flow freely. If by chance an infant gets this container near its face and shakes it, there occurs frequently a shower of a large mass of powder which the infant aspirates as it involuntarily takes a deep inspiration.

The trouble has a very sudden onset usually. Sometimes the infant is completely asphyxiated. Quite commonly the resultant effect is a fulminating broncho-pneumonia which lasts 2 to 3 weeks, which is characterized by a variable temperature, a very acute taxemia, and particularly by cyanosis. The usual treatment for broncho-pneumonia is indicated.

Of the twelve cases reported by Heiman and Aschner, one died in 24 hours after the onset. Three others were quite ill with broncho-pneumonia, but recovered. The remainder recovered without definite involvement of the lungs. This gives a mortality rate for this small series of cases of approximately 8 per cent.

We fully agree that the stearate of zinc container as now made for use in the nursery is a distinct menace to the health of infants. Public health officials should be made acquainted with the dangers and appropriate warnings be issued to societies and organizations interested in infant welfare. And may we not urge

*The Aspiration of Stearate of Zinc in Infancy, *Am. Jour. Dis. of Children*, Vol. 23, No. 6, June, 1922
Henry Heiman and Paul Aschner.

particularly that the practitioner remember to warn parents of the dangers as a part of his work in the conservation of infant health, a small but not inconsequential part of modern preventive medicine?

Health officials may possibly by urgent representations to the manufacturers induce them to modify the type of their containers. The co-operation of the manufacturers would in the main obviate the necessity of resorting to public action and propaganda.

H. T. C.

THE UNIVERSITY HOSPITAL TRAINING SCHOOL FOR NURSES

Last month we imparted information revealing a proposed plan for the creation of a special training school for nurses in connection with the University Hospital. That the establishment of such a school will be detrimental to the interests of the profession is held by a goodly number of our members. These members and your officers believe that before such a scheme is "put over" a full open discussion of the plan should be engaged in and the ends sought by the proponents fully explained.

In this issue there will be found the call for such a conference which will be held in Ann Arbor on September 20 at 2:00 P. M. The State Society will be represented by the Council and the committees on Legislation and Civic and Industrial Relations. Steps will be taken to place the profession's views and recommendations before the Board of Regents.

For the further information of our members we are publishing extracts from the Rockefeller Foundation's Committee report to reveal that which is being sought. President Dodge will appreciate receiving the views and opinions of our members in regard to this plan. Write and tell him whether you are in favor of or opposed to this scheme.

The committee which presents the following report was first appointed by the Rockefeller Foundation in January, 1919, to conduct a study of "the proper training of public health nurses."

It was, therefore, the pressing need for more, and and for better, nurses in the field of public health that first suggested the desirability of such an investigation. It soon became clear, however, that the entire problem of nursing and of nursing education, relating to the care of the sick as well as to the prevention of disease, formed one essential whole and must be so considered if sound conclusions were to be attained. A year later, in February, 1920, the Foundation requested us to broaden the scope of our inquiry to include "a study of general nursing education, with a view to developing a program for further study and for recommendation of further procedure." We have attempted, therefore, to survey the entire field occupied by the nurse and other workers of related type; to form a conception of the tasks to be performed and the qualifications necessary for their execution; and on

the basis of such a study of function to establish sound minimum educational standards for each type of nursing service for which there appears to be a vital social need.

THE ROLE OF THE NURSE IN PUBLIC HEALTH

Since it was the obvious need for more adequate nursing service in the field of public health which brought to a head the demand for a comprehensive study of nursing education, long-felt and first voiced by the official organization of nurses, it seems natural to begin with a consideration of this phase of the broader problem.

It is obvious that the public health movement has passed far beyond its earlier objectives of community sanitation and the control of the contact-borne diseases by isolation and the use of sera and vaccines. Major health problems of the present day, such as the control of infant mortality and tuberculosis, can be solved only through personal hygiene—an alteration in the daily habits of the individual—and through the establishment of new contacts with the public—contacts which shall permit the application of the resources of medical science at a stage in disease when they can produce a maximum effect. Such changes in the daily habits of the people and in their relation to their medical advisors, can be accomplished by but one means—education. In its present phase of emphasis on personal hygiene, the public health movement has thus become during the past two decades preeminently a campaign of popular education.

The new educational objectives of the health administrator may be approached to a limited extent by mass methods. The printed page, the public lecture, the exhibit, the cinematograph, the radiogram, help to prepare the ground and to make success easier. The ultimate victory over ignorance is, however, rarely attained in such ways. Direct personal contact with the conditions of the individual life is essential to success in a matter so truly personal as hygiene. We have sought during the past twenty years for a missionary to carry the message of health into each individual home; and in America we have found this messenger of health in the public health nurse. In order to meet generally accepted standards we should have approximately 50,000 public health nurses to serve the population of the United States—as against 11,000 now in the field. All public health authorities will probably agree that the need for nurses is the largest outstanding problem before the health administrator of the present day.

In view of this fact, public health authorities, both in this country and abroad, have naturally considered the possibility of finding a short way out of their difficulties by the employment of women trained in some less vigorous fashion than that involved in the education of the nurse. It was, therefore, to the question of the necessary and desirable equipment of the teacher of hygiene in the home that we first directed our attention. There are at present two distinct types of public health nursing practice in the United States—that in which the nurse confines herself to the teaching of hygiene, and that in which such instructive work is combined with the actual care of the sick. A third type of visiting nursing, in which bedside care is given with no educational service, may be observed in individual instances. It results, however, from temporary limitations rather than considered policy, since practically all visiting nurse associations, in theory at least, stress hygienic education in their official program.

The question whether the public health nurse should or should not also render bedside care has been hotly debated during the past few years. The

arguments for purely instructive service rest mainly on two grounds, the administrative difficulties involved in the conduct of private sick nursing by official health agencies and the danger that the urgent demands of sick nursing may lead to the neglect of preventive educational measures which are of more basic and fundamental significance. Both of these objections are real and important ones. Yet the observations made in the course of our survey indicate that both may perhaps ultimately be overcome. Several municipal health departments have definitely undertaken to provide organized nursing service for bedside care combined with health teaching, while in other instances instructive nurses, under public auspices, combine a certain amount of emergency service with their fundamentally educational activities. So far as the neglect of instructive work is concerned it results from numerical inadequacy of personnel and can be avoided by a sufficiently large nursing staff.

On the other hand the plan of instructive nursing divorced from bedside care suffers from defects which if less obvious than those mentioned above are in reality more serious, because they are inherent in the very plan itself and therefore not subject to control. In the first place the introduction of the instructive, but non-nursing field worker creates at once a duplication of effort, since there must be a nurse from some other agency employed in the same district to give bedside care. In the second place the field worker who attempts health education without giving nursing care is by that very fact cut off from the contact which gives the instructive bedside nurse her most important psychological asset. The nurse who approaches a family where sickness exists, and renders direct technical service in mitigating the burden of that sickness, has an overwhelming advantage, then and thereafter, in teaching the lessons of hygiene. With an adequate number of nurses per unit of population, we believe that the combined service of teaching and nursing will yield the largest results. Nurses employed by state health departments and others whose work is largely stimulative and supervisory in nature may not, of course, be in position to render direct bedside care.

There are other messengers who may be sent into the field to fulfill other functions. The task of the trained social worker for example is to diagnose and repair maladjustments in social relationships, a correlated, but quite distinct vocational field. Even public health agencies may employ other field workers of an allied type, such as clinic messengers. It is obvious, however, that where health instruction is combined with bedside care the fully trained nurse is the only possible type of health educator; and such a combination represents the one type of service which it is feasible to supply in rural districts. Even purely instructive work, if conducted on the generalized district plan, calls for an ability to detect the early signs of contagious disease, to discern symptoms which suggest tuberculosis, to give counsel as to infant care or the feeding of older children, which can scarcely be attained without a wide training. The relative lack of nursing personnel in Europe has there led to the attempt to train health visitors of the purely instructive type for dealing with special individual problems, such as tuberculosis or child welfare, by training courses much shorter than those required for the preparation of the nurse. Opinion as to the result of such experiments in Europe varies widely; but for conditions as they exist in the United States we are convinced that the teacher of hygiene in the home should be equipped with no less rigorous training than that accorded to the bedside nurse, further supplemented by special

studies along the lines of public health and social services.

Such a nurse establishes herself in the confidence of her community, so that she becomes its trusted advisor and best friend, caring for the sick, securing medical aid, counselling as to hygiene, resolving difficulties of a hundred sorts with the touch of a practiced hand.

Nearly half of the nurses observed in our survey were classed as definitely successful in their work and less than one-fourth as definitely unsuccessful—a showing perhaps better than would be made by a random sampling of most professions. Yet it remains true that either from a lack of knowledge of preventive measures or of teaching methods, a substantial proportion of public health nurses do fail to realize the possibilities of their profession. Administrative policies, overloading and inadequate supervision, are sometimes at the root of the trouble; yet it is obvious that such a calling as public health nursing demands in the first place a high degree of natural capacity and in the second place a sound and a broad education.

We are convinced, therefore, that the teacher of hygiene in the home should possess in the first place the fundamental education of the nurse and that this should be supplemented by a graduate course in the special problems of public health. The latter point will be discussed in detail in a succeeding paragraph, but we believe that the general considerations so far discussed warrant the following conclusion:

Conclusion 1. That, since constructive health work and health teaching in families is best done by persons:

(a) capable of giving general health instruction, as distinguished from instruction in any one specialty; and

(b) capable of rendering bedside care at need, the agent responsible for such constructive health work and health teaching in families should have completed the nurses' training. There will, of course, be need for the employment, in addition to the public health nurse, of other types of experts such as nutrition workers, occupational therapists, and the like.

That as soon as may be practicable, all agencies, public or private, employing public health nurses, should require as a pre-requisite for employment the basic hospital training, followed by a post-graduate course, including both class work and field work, in public health nursing.

THE NEED OF NURSES OF HIGH GRADE IN HOSPITAL SUPERVISION AND NURSING EDUCATION

Before considering the basic demand for nurses to function in the routine care of the sick, we must point out that it is by no means only in the field of public health nursing, that the need for women of high natural qualifications and fundamental training is now manifest. The modern hospital and the modern dispensary represent social forces of enormous and growing magnitude. The technical complexity of their operation increases with every passing year; and, aside from the problem of the staff nurses required for the ordinary routine of such institutions, which will be discussed in a succeeding paragraph, there is perhaps no more urgent problem for the hospital administrator than that of obtaining nursing superintendents and supervisors adequate for the performance of their difficult tasks. The development, both of public health nursing and of administrative hospital nursing, involves and demands a corresponding development in nursing education which constitutes another inviting field for women.

The defective preparation and qualifications of many instructors in schools of nursing, in both

theoretical and practical branches, is very marked. Yet in the training school the instructor is often called upon to teach six or eight different subjects, far more than would be demanded even of the teacher in a country high school. It should be noted, however, that the appointment of any full-time instructors is a very recent development, and has marked a signal educational advance.

With the development of nursing education which we visualize in the future, and particularly with the growth of University Schools of Nursing, to be discussed in a succeeding paragraph, the field for well-qualified teachers of nursing should prove an increasingly attractive one. We believe we may safely advance as

Conclusion 2. That the career open to young-women of high capacity, in public health nursing or in hospital supervision and nursing education, is one of the most attractive fields now open, in its promise of professional success and of rewarding public service; and that every effort should be made to attract such women into this field.

Conclusion 3. That for the care of persons suffering from serious and acute disease, the safety of the patient, and the responsibility of the medical and nursing professions, demand the maintenance of the standards of educational attainment now generally accepted by the best sentiment of both professions and embodied in the legislation of the more progressive states; and that any attempt to lower these standards would be fraught with real danger to the public.

The solution of the economic problem which confronts the family of low income must probably be sought along the lines of cost distribution through some form of community organization, or along the lines of group insurance such as that being experimentally tested in New York city.

Conclusion 4. That steps should be taken through state legislation for the definition and licensure of a subsidiary grade of nursing service, the subsidiary type of worker to serve under practicing physicians in the care of mild and chronic illness, and convalescence, and possibly to assist under the direction of the trained nurse in certain phases of hospital and visiting nursing.

The foregoing paragraphs present, we are aware, a somewhat gloomy picture. In presenting them, we would emphasize two points which are of major importance. In the first place, such shortcomings as have been pointed out are not fairly chargeable to deliberate neglect on the part of hospital authorities or nursing superintendents. In so far as they exist, they are due to the inherent difficulty of adjusting the conflicting claims of hospital management and nursing education, under a system in which nursing education is provided with no independent financial endowment for its specific ends. The difficulties involved in the task of resolving this conflict are perhaps illustrated by the fact that out of 144 registered training schools in New York state, 60 changed superintendents during a single recent year.

Conclusion 5. That, while training schools for nurses have made remarkable progress, and while the best schools of today in many respects reach a high level of educational attainment, the average hospital training school is not organized on such a basis as to conform to the standards accepted in other educational fields; that the instruction in such schools is frequently casual and uncorrelated; that the educational needs and the health and strength of students are frequently sacrificed to practical hospital exigencies; that such shortcomings are primarily due to the lack of independent endowments for nursing education; that existing educational facilities are on the whole in the majority of schools inadequate for the preparation of the high

grade of nurses required for the care of serious illness, and for service in the fields of public health nursing and nursing education, and that one of the chief reasons for the lack of sufficient recruits, of a high type, to meet such needs lies precisely in the fact that the average hospital training school does not offer a sufficiently attractive avenue of entrance to this field.

Conclusion 7. Superintendents, supervisors, instructors and public health nurses should in all cases receive special additional training beyond the basic nursing course.

THE UNIVERSITY SCHOOL OF NURSING

For advanced training the development of the University School of Nursing has been perhaps the most notable feature in the progress of nursing education during the past ten years. As long ago as 1899 teachers college in Columbia University admitted properly qualified nurses to its junior class, thus giving two years of college credit for the three years of nursing training. Since 1916, no less than thirteen different colleges and universities have provided combined courses, through which students may acquire both a nurse's training and a college degree.

The combined course in such a school, for example, involves two years of ordinary college work including besides work of a liberal nature certain of the fundamental sciences basic in nursing education. Then follows two years of intensive training in the hospital and, finally, a fifth year of post-graduate education in one of the higher specialties of nursing, public health, institutional supervision or nursing education. At the close of training, the student receives a diploma in nursing and the bachelor's degree in nursing or in science.

This type of school of nursing should, in the judgment of the committee, be a separate and independent department of the university, cognate in rank and organization with the school of medicine, or the school of law. It should have direct responsibility for all instruction given during the years of hospital training and the post-graduate nursing year.

A definite affiliation with one or more hospitals must in any case be established, along the line of these agreements now in force between medical schools and hospitals. The school supplies student nursing service and assumes a definite responsibility for a larger or smaller share of ward supervision and perhaps of graduate service. The hospital, on the other hand, provides maintenance for the nursing staff and conforms to the standards held by the university to be essential for the realization of its educational ideals. A university hospital will of course offer the most promising field for a University School of Nursing, but in default of such an institution there seems no reason why a university school should not establish satisfactory working agreements with various adjacent hospitals, provided only that the maintenance of adequate standards in the practice field remains in its own hands.

If its present practical functions be clearly understood, the University School of Nursing possesses unique advantages in respect to both of the essentials for success in nursing education, to which reference has been made in a preceding paragraph. It possesses the power of independent educational leadership and is grounded on the solid foundations of educational ideals, to a degree which a training school committee, ultimately responsible to board of hospital trustees, can seldom hope to realize; and it is likely to obtain financial resources of a more nearly adequate extent. Furthermore, through its university contacts the University School of Nursing has unique opportunities to attract students of

the type so greatly needed for the fulfillment of the higher tasks in the nursing of the future.

It should be made quite clear that the committee does not recommend that nursing schools in general should work toward the establishment of courses of a character that a university would accept for a degree. We realize that the numerical proportion of the nursing profession to be contributed by the University school will perhaps always be a relatively small one. Yet we believe that the importance of this portion of the educational structure would be difficult to overestimate. The value that we see at present in the University schools is that they will furnish a body of leaders who have the fundamental training essential in administrators, teachers, and the like. One of the greatest, if not the greatest of the reasons for the imperfections in the present training of private duty nurses is that great numbers of schools have developed without any co-incident development of adequate numbers of persons properly trained to guide the pupils during their course. Unless well taught they cannot be well trained. The University School of Nursing should be the keystone of the entire arch. It will not only train leaders and develop and standardize procedures for all other schools, it will, by its permeating influence, give inspiration and balance to the movement as a whole and gradually, but steadily improve the efficiency of every institution for the training of nurses of whatever type. We would therefore urge as

Conclusion 8. That the development and strengthening of University Schools of Nursing of a high grade for the training of leaders is of fundamental importance in the furtherance of nursing education.

Conclusion 9. That when the licensure of a subsidiary grade of nursing service is provided for, the establishment of training courses in preparation for such service is highly desirable; that such courses should be conducted in special hospitals, in small unaffiliated general hospitals or in separate sections of hospitals where nurses are also trained; and that the course should be of eight or nine months duration, provided the standards of such schools be approved by the same educational board which governs nursing training schools.

Editorial Comments

A million dollars would earn about \$50,000 per year. That is the amount that medical profession was to be sold out for. Well it can't be done for that.

We have never heard of any endowment given by the Rockefeller Institute that did not have some sort of a string tied to it. Of course the terms of this proposed endowment has not been imparted so we cannot impart the joker.

The Joint Committee on Public Health Education will hold its next meeting in October. At that meeting there will be formulated a new Bulletin imparting the topics that will be covered by the speakers that have been nominated by county societies.

We cannot possibly perceive how it would be possible to have two independent professions supervise, direct and administer to the needs of the pa-

tients in a hospital. Time and experience has shown that such a plan would be most fool-hardy to express it mildly.

We understand that the self-appointed leaders from the nursing profession, during a discussion of the plan have stated—"We are not going to take orders from the doctors," and "henceforth we will perform our nursing service under our own direction and not under the direction of a doctor."

At the request of the State Association of Rotary Clubs, President Dodge has appointed a special committee composed of Drs. A. L. LaFerte, LeRoy Abbott and John T. Dodgen to consult with a committee from the Rotary Club concerning the care of crippled children of the state. It is hoped that a satisfactory plan will be formulated to provide orthopedic care for these children.

We want you, Doctor, to ponder over this project and plan that they are trying to put over on you. How will it affect you? Are you going to sit idly by or are you going to voice your opinions and demand that your personal rights shall not be infringed upon? Right now, and not next fall, is the time to act and to secure action by your county society.

Will the nursing schools and their leaders relegate to the dumpheap the Florence Nightengale Oath of Service? Seems to us that that oath, which is customarily administered to graduating nurses, contains a reference to allegiance to the doctor and to a life of service. Or, will a new, revised oath be formulated? Have these Nurse Leaders forgotten that provision of the oath that they subscribed to?

Sometime ago a conference was held with representatives of the Western Reserve University in Cleveland regarding a similar proposed Nurse School. Dr. Crile suggested that these student nurses be kept in school the rest of their lives because they would be good for nothing anyway after they were graduated from the school. What is needed is more practical trained nurses and not super-educated nurses.

If you know any of the regents write to them and place before them your protests to this plan. If you do not know any of them, write to them anyway and let them know that the medical profession is emphatically opposed to such a plan of socialism. Further, request that the management and direction of the University Hospital be placed under the direction of the Medical Faculty and that the hospital director and superintendent shall report to the dean of the medical school.

As we understand it, from the information that has been imparted, it is at the suggestion and recommendation of the director of the University hospital, Dr. C. G. Parnall, that this proposed new

Training School for Nurses and the education of a new type of nurse be established. Our information is that the Medical Faculty of the University and the medical staff of the hospital, with but two exceptions, went on record as opposed to the plan. The dean of the medical school, Dr. Cabot, has placed before President Burton and the Regents the Faculty's objection to the plan.

Talk about Socialized Medicine, State Medicine, Health Insurance, why this proposed plan contains more damaging and damnable principles and policies than any type of so-called State Medicine yet advanced. We cannot perceive why the director of the University Hospital did not come into the open and submit the plan to the medical profession of the state, obtain its opinion, ascertain its attitude and invite a general discussion before making so radical a recommendation and trying to secure its adoption. We understand he lacked but one vote in the Board of Regents to put it over.

It has always appeared to us and we believe the sentiment is somewhat general, that the management and nursing service of the University Hospital should be under the direct supervision of the Medical School and its faculty. The Hospital should not be separate and independent and report directly to the president and the regents, for they are without the proper knowledge as to what is needed for efficient, scientific administration. We trust that this incident will cause a change to be brought about that will remedy the at present unsatisfactory plan of administration.

From time to time we have been impressed by the valuable advice that Dr. Wm. Brady imparts to the public through his health columns that are syndicated to many local newspapers. He has done much for the education of the public in regard to health and disease. His advice merits our approval. Recently he advanced the following reply to an inquirer who wanted to know how to be governed in the selection of a physician. We are publishing it in this column in the hope that it will serve as an impetus for all our readers to meet the requirements laid down.

First, the name of the good doctor is rarely seen in print.

Second, in making examinations he requires the patient to remove clothing which may interfere with the detection of signs and symptoms.

Third, when he is out of town he is attending a medical meeting or taking a brief post-graduate course.

Fourth, he asks frequently for consultations or refers patients to colleagues for special examinations, and when his patients die asks for autopsies, all because he never gets through studying medicine. This is why he buys so many books and subscribes to so many first-class medical journals.

Fifth, he prescribes simple medicines to meet particular indications at the particular time, and not

"ready-made" stuff with which he has recently been "sampled." Or, perhaps, he prescribes no medicine at all, but merely lays down some common-sense rules for the guidance of his patient.

Sixth, he never guarantees or promises a "cure," because to do so would be to be dishonest.

Seventh, he is invariably a stickler for the observance of the rules of ethics.

Eighth, being an honest laborer, he deems himself worthy of his hire and demands payment.

Ninth, he does not put a patient off with the evasion, "weak lungs," nor does he perpetrate the near diagnosis, "catarrh." He makes a definite diagnosis or frankly admits his inability to do so.

Tenth, "he will do anything short of murder for a loyal patient."

Deaths

Mrs. Jessie Van Meter Ballard, wife of Dr. Charles S. Ballard, formerly of Flint, died at her home, New Haven, Conn., after a three months' illness. Dr. and Mrs. Ballard had resided in Flint a number of years prior to 18 months ago, when they went to New Haven, where Dr. Ballard is engaged in public health service. In Flint Dr. Ballard was a practicing physician. Surviving are her husband, one son, and parents, Mr. and Mrs. E. W. Van Meter, 725 Oak street. The body was brought to Flint for interment.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer**, 309 Post Building, Battle Creek, Michigan. **Reference any Bank in Battle Creek.**

Absence on vacations accounts for non-receipt of news items from our correspondents.

C. S. Sligh has donated 15 acres of land, \$350,000 for building and an endowment of one-half million for a new Children's Hospital in Grand Rapids.

Dr. W. T. Dodge of Big Rapids and Dr. F. C. Warnshuis of Grand Rapids are the invited speakers at the Louisville, Ky., Medical Society on Sept. 25th.

Dr. Alden H. Williams of Grand Rapids entertained the members of the Kent County Medical Society at his summer home at Highland Park on August 12.

Dr. Carl F. Snapp of Grand Rapids announces that he will return to Grand Rapids and limit his practice to oto-laryngology. The doctor was formerly Fellow in Oto-laryngology in the University of Chicago.

Flint school clinics will be established, ready to function at the beginning of the fall term of school, with full time and part time physicians and dentists in charge, provision and final arrangements having

been made at the monthly meeting of the board of education at the public library.

Dr. Lafon Jones will be superintendent of this new department of the public schools, having as his assistants in the dental department, Dr. W. R. Davis, who will be in charge of that branch. Dr. Meriel L. Dimick, and Dr. Fred Marsh and in the medical and surgical department, Dr. Nell Ward. The estimated cost of this feature is only \$7,500 more than the board of education spent last year in the promotion of health in the schools, the cost of the permanent clinical equipment being included in that figure. Last year the board of education appropriated \$5,000 to the board of health.

The board of education purposes particularly to do dental work and remove tonsils and adenoids, of those school children who could not otherwise have it done, according to the reports given at the meeting. Other cases will be taken care of as they present themselves. A thorough examination of the teeth of every pupil in the public schools will be made at the opening of school.

Dr. Davis will be employed half time, 12 months; Dr. Dimmick full time, 10 months; Dr. Marsh half time, 10 months, and Dr. Ward half time, 10 months.

Three clinics will be established, a permanent clinic at Oak Grove and temporary clinics in schools in other sections of the city. A suite of rooms in Partierre, a section in the Teachers club at Oak Grove, has been procured and will be fitted up for the permanent clinic.

Public school nurses will function under this department, Dr. Jones being in direct supervision.

As a further aid in health work in public schools, the board of education demands a certificate of health from each new employee.

Book Reviews

A TEXT-BOOK OF GYNECOLOGY. James Young,^{*} D. S. O., M. D., F. R. C. S. (Edin.) Assistant physician, Royal Maternity Hospital; Lecturer in Clinical Gynecology and Clinical Obstetrics, Edinburgh University; Late University Clinical Tutor in Surgery; Gynecologist Provident Dispensary, Edinburgh; Examiner, Central Midwives Board for Scotland, etc. Price \$2.75. The MacMillan Company, Publishers, New York.

The author and publishers feel that this definitive text is a distinct achievement in text-book publication in that this comprehensive subject has been adequately presented in compact form with copious illustrations at a more reasonable price to the student.

It is designed along new lines to provide a required text for classroom use in place of the large, expensive works which contain many specialties usually covered by the teacher's lectures.

Miscellaneous

BIG MEDICINE*

(Indian expression meaning "something more important or greater than the ordinary.")

To the Editor:

Less than a half hour since, I stood at a street corner and observed a number of men decorated

with very large 'badges' announcing their purpose to visit the capitol and legislature, now in session. It is a reasonably safe bet that they will attain their object. Not because their cause is more worthy than many other causes, but because they are organized. When they bust upon the gaze of the patriots who make our laws, said patriots will think forward to next election, and then back to the present time. After these mental gymnastics, (well within the compass of the modern politician), an estimate of the situation will bid each and all of them to be 'with' the organized tribe of men who wear the badges, announcing their purpose, and who quit their work to come to enforce their ideas.

And as I watched the goodly crowd, I thought of my chosen vocation—wondering—if a bill were to be introduced into the legislature making it imperative to pay (let us make an hypothesis) \$100.00 each year to practice medicine in the state of Illinois, how many doctors would leave their work to come and fight it.

One idea brought on another and another, until it dawned upon the writer that he might be arrested for what he thinks concerning the lack of organization of the medical profession. So, carefully expunging the astonishers and dashes, and pulling the stringers from some bad words of polysyllabic trend, I seat myself to hold up a mirror to his excellency the Doctor.

But first let me illustrate the gratitude of those (in general) who pat us upon the back and call us 'most unselfish.'

An old patient had held a very responsible position for twenty years. Men had been advanced over him; he taught the promoted ones their new duties, guided them with their work; aided them in searching out their mistakes; and his reward was ever the same. Occasionally the president of the concern would come over to his desk and with his presidential hand upon my old patient's shoulder, would say, 'We can always depend upon you. We never worry about you turning us down.'

Fine reward for faithful service! One day, my patient happened to be in bad humor, and when the speech was about to be delivered per routine, he arose and requested a little advancement upon his own account. And he set a time limit to his demand. The promotion did not come. He quit. Quit after twenty years of faithful service. He was not 'organized' but he awakened to the fact that he had been rather sadly handled. Unavailingly they tried to coax him back to his job.

In one week he had accepted another position (two were offered) paying him fifty dollars more per month, than he had ever before received. In fine, he dispensed with the pat upon the back and put gold into his poke. Now he owns his home and plays golf. Owns his golf sticks too.

In holding up the mirror to you, my dear brother doctor—no—let us wait and have you take a good look at yourself tonight when you return to your boudoir. Take good stock of yourself. See if it is not a fact that you have been pegging along upon

*From Medical Review of Reviews, July, 1922.

the comfort you have received from a pat upon your back and the words 'the most unselfish profession,' etc., ad nauseum.

In 1917 about forty thousand of us changed our street attire into well-fitting suits of olive drab, and took vacations from our regular work, for varying lengths of time (over 1½ years in my personal case). And what happened? The fellows who did not get into uniforms were doubly busy doing our work and their own; so all-fire ding-busted busy that they let the National Politicians raise the Harrison Ante to \$3.00 a year in place of the \$1.00 that went through with the law 'just to make it legal.' Now then, when they raise the ante 200% at one shot, and get by with it, it begins to look as if you were too busy to attend to your own welfare. And then what? Oh, nothing, nothing at all save the pending health legislation; to ape the ways of decadent foreign medicine, etc. (Compulsory Health Insurance).

By the way, my dear doctor, did you ever note the lawyers, (who comprise most of our law making bodies), endeavoring to establish a law that will give everybody all the legal advice and protection that they may think they need, for a stipulated (small) sum annually. The 'No's' have it. And you get yours between the 'I's' when the law makers go to work upon your privileges.

Look at yourself. Your head in a cloud and your feet in the mud; wondering with your head, how you will complete the college schooling of your offspring; and mucking around, with your feet not even seeking firm ground. Take a good look now and see if you are not proud of the image you see. The brains of a mental colossus and business ability that is (generally) less than that of the sixteen-year-old newsboy who has a business of his own by the time he arrives at voting age. You know exactly how to make a diagnosis of a hemorrhage into the posterior columns of Gaul, but I will wager a ten cent cigar (5c before the war), that you cannot tell a good oil stock certificate from a bad one.

The medical schools should devote a part of the time spent in learning, to a course in business—genuine business training.

An old 'con' man, a patient of mine for years, who always kept 'within the law,' once told me that if he ever went into the game again, he would work exclusively with the medical profession, as they were the easiest of all easy morks.

But medicine is a 'higher calling.' Sure; nice pat upon the back. 'More at stake than dollars and cents,' but it takes the dollars and cents to buy the steaks that put meat upon your bones. "Looked upon as a learned profession"—oh, yes, we admit all that twaddle. It is just such bunk that makes you wait for your bill against an estate (if you ever get it), until certain other claims are satisfied. The laboring man can take the clothes from off your back, to satisfy an unpaid claim, but you cannot even garnishee unless he makes more than a stipulated minimum sum per week.

In the name of all things holy, why is it that the physician should be a member of the 'professions,'

while his house needs painting and his shoes half soling. Classify it in law as a 'trade,' and see if it is not possible to collect a great many bills that are outstanding and not yet out-lawyed.

I am wondering how many readers of this little heart-to-heart talk have ever sat down and carefully analyzed the medical situation as it exists today. We can all remember the time when a 'paper' devoted to the commercial side of medical practice would have been 'boo-ed' off the platform, and yet today, we occasionally hear some courageous brother M. D. sounding the danger Klaxon to us. Do we listen? Not so as one could notice it. Do we 'organize?' Sure! For scientific purposes only. It would be unsuited that such a noble profession should prostitute its honor by organizing for sordid gain; or the protection of the monetary welfare of its members. Bosh, Brother, Bosh. Take your little verbal reward, and trot along home; if you expect to live and wear clothes and eat food, you had better get busy, and that, soon. Even sooner if possible.

Now then, you dreamer of dreams, who is paid for his sacrifices by laudatory words; what have you to say? Not a damn word, eh? I thought not.

When words buy beans; when enconiums purchase houses; when citations can be banked and checks drawn against them, will be the time that I agree with you in your aloofness to matters concerning 'sordid gold.' Until then, I'm for organization.

Why not show the good common sense of the plumbers, bakers, brick masons, printers, hatters—in fact of almost everybody but you.

"Petty jealousies would wreck the structure?" Don't you suppose that the carpenters and the steam fitters have their little internecine feuds? Do you suppose that the miners are without their intramural 'scraps.' But they stick together and when they decide to demand that which you have decided is their right, you, my dear brother, and I, and all of us, have to sit up and take notice.

Do not think that I am advocating an eight-hour day for doctors. That is too utopian for this day. But I should like to see a six-day week for the physician, with Sundays reserved for his pleasure and relaxation, except when interfered with by emergencies (which are mostly —) I would like to see him spend his nights in slumber instead of in a Ford. Three-fourths of all night calls are unnecessary, but in our unorganized fight for existence, if we do not bow humbly to the telephone bell or to the peremptory rap upon the door, the next and nearest doctor will get the call and the patient—because we are not organized.

Wait, just wait until they try out the "health insurance" idea and see how much leisure is yours. In England, many doctors must average about 20 patients daily to live. Could that state of affairs have come into being if the profession had been organized as are the miners or the plumbers? Of course, it could not.

The oldest of military rules are first, "never di-

vide your forces" and secondly, "try to separate the forces of the enemy." Are we undivided?

Unless the profession of medicine organizes; takes time to fight vicious legislation; and (literally) fathers laws to further its own welfare, the future of medicine in the United States is far from a dream of bliss.

In Chicago, Ill., the insurance companies (organized) became so arrogant, that when bills were rendered by doctors who had not subscribed to their fee schedule, they not only did not pay, but threatened the presumptuous doctor with a well-regulated boycott. Finally, the society of Chicago physicians awakened and organized to such extent that the roaring lions of insurance avocation, became like suckling doves, and came to partake of the grain that was tendered them instead of the quivering flesh that they had expected.

Organization did it.

Organization will do much for us. But the chain will only be so strong as its weakest link. When a link breaks it must be very carefully mended or cast aside. In the "unions" they fine the culprit, as a warning. One fine is usually sufficient.

And only recently, there appeared in the state of West Virginia, armed forces, who were willing to battle to enforce their ideas of right and justice.

Imagine physicians doing that. Incredible, isn't it?

But, there is another side to the argument. We are told by thinking persons that "state medicine" is upon its way and is bound to come. We have the horrible example of what it has done for medicine, from our brethren in Europe. History has a habit of repeating itself, so we may expect the same infamous results here. How may we avoid it? Simple as you please. Strange you have not thought of it before.

Just discourage your offspring from the study of medicine; discourage others; tell them the truth as concerns the future in medicine; then in a quarter of a century, the broad vested legislators who are ever philanthropic so long as their own welfare is not concerned, will realize what their damnable meddling has accomplished.

Study it over. Is the medical outlook at all brilliant? The "noes" have it.

My son soon enters upon his first collegiate year. He wanted to be a doctor, until I explained to him.

Now then, brothers, I have done my part—it is up to you to do yours.

"If this be treason, make the most of it."

In closing this sermon whose purport is to beg that you begin to start to commence to prepare to "organize" I cast about for a "climax" that with a warp of fire and a woof of flame, would burn an irreparable hole into your thinking apparatus, and would make you remember.

Providence placed in my hands the clipping that is quoted verbatim below. I can think of no better ending for this appeal for "life" liberty and the pursuit of happiness than from The Medical Pocket Quarterly.

WHY?

Why does a lawyer get \$10—without moving from his seat—for making out a lease that any trained stenographer can fill out in ten minutes, while a physician gets only \$1 to \$3 for diagnosing and prescribing for a patient's ills, the correction of which will keep him fit to earn thousands?

Why does a mechanical engineer get \$50 to \$250 for looking over a plant and telling a manufacturer where to place machinery so as to get out of it maximum efficiency, and a physician gets 1-25 to 1-125 that sum for looking over a man and tell-

ing him how to get the maximum efficiency out of himself.

Why are attorneys able to collect their fees usually in advance and doctors two months to a year after service is rendered, if they ever get them at all?

Why do doctors give away \$100,000,000 worth of free service a year in hospitals, clinics, home office treatment, while other men give away nothing?

Why are butchers, bakers, grocers and milkmen without education, many hardly able to read or write, able to earn more money than thousands of physicians with education?

Why do legislatures concede to lawyers practically every request they make for laws increasing the emoluments and safeguarding the interest of their profession and refuse practically all requests for increasing the emoluments and protecting the interest of physicians engaged in public health work and otherwise?

Why do doctors have to work 1 to 18 hours a day, seven days a week, to earn the monetary rewards of mechanics and other lay workers, working only 8 hours a day, five days a week and half a day Saturday, with all holidays off?

Why is it that a doctor making a honest mistake in the treatment of a patient is sued for malpractice and often mulcted in heavy damages, while a lawyer making the same honest mistake in the trial and handling of a client's case is never sued and never obliged to pay a cent of damages?

Why is it that we have to pay larger premiums for indemnity insurance than rum sellers, manufacturers employing workers at hazardous tasks, and almost every other type of risk?

Because we are considered the softest and easiest class on earth on which to impose and the value of the service we render the world the least appreciated.

Isn't it time we woke up and got on our toes—time we became more aggressive for our rights?

FRED S. O'HARA, M. D.

Springfield, Ill.

THE JOURNAL
IS
YOUR FORUM—
WE INVITE YOU
TO UTILIZE
IT FOR THE
EXPRESSION OF
YOUR VIEWS
ON
MEDICAL SUBJECTS

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Original Articles

PERICARDITIS WITH EFFUSION

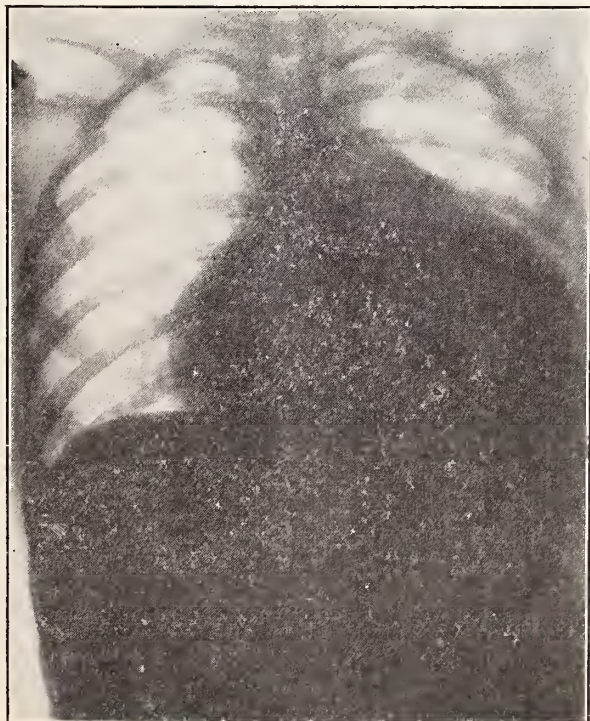
A. F. JENNINGS AND J. E. DELPH
DETROIT, MICH.

During a period of three weeks, in April and May, there appeared on the medical service of Harper Hospital three cases of acute pericarditis with effusion, which are reported in this paper. The details of the history and examination are summarized in the tables and diagrams. All cases were the result of acute rheumatic fever, the joint symptoms preceding the pericarditis by fourteen, seven and twenty-seven days. Two of the patients, both young girls, had previously had acute rheumatic fever. One of them had her tonsils removed some years before the first attack—the other, following her first rheumatism.

The two girls did not enter the hospital until some days of their illness had elapsed. Case



Case III—Miss K. K.



Case II—Miss M. H.

II was observed by Dr. H. M. Rich and Dr. L. J. Piney. Although a pericardial friction sound was observed by them, they concluded that there was consolidation of the whole left lower lobe. The diagnosis of pneumonia was further substantiated by a high temperature and respiration, and a rapid drop of temperature on the seventh day. Case III was carefully observed by Dr. Walter Ford. His conclusions were that endocarditis alone was present. She was indeed the most difficult case for diagnosis, and the question was open to argument up to the time of her death. Case I was under our observation in the hospital from the onset. Although the pericardial friction was observed on the second day, the pulmonary signs led to a diagnosis of pneumonia. Dyspnea was the most distressing symptom. It was very great in Case I and marked in Case II. Pain was severe in Case I and II—precordial in location. Cough was severe in Case I associated with pulmonary edema. Case I showed a mild delirium for some days. Case

II vomited. Case III, in whom the symptoms were not at all severe, was the one to eventually die.

The pericardial friction rub was heard in all three. In Case I and II it was leathery and rough in character, and could not be mistaken. In Case III it was soft and distinguished with difficulty from an endocardial sound. The diagnosis would have remained in doubt had not necropsy disclosed the condition. The friction rub persisted throughout the period of effusion in all cases.

The borders of cardiac dullness were interesting. In all there was an increase in the areas of dullness in the course of a few days at the beginning and a decrease during convalescence. The cardio-hepatic angle was diminished in all patients, but not more than would have been possible in dilatation of the right heart. The increase of dullness in these patients was most strikingly upward, reaching the first interspace or rib, and forming a broad curve in the second and third interspaces.

In all patients the apex impulse was well palpated throughout the illness, and near to the left border of dullness. The sounds became of poorer quality as the illness reached its peak, but not more so than would occur in dilatation. In Case II and III previous valvular disease had resulted in cardiac hypertrophy. In Case I, however, the enlargement of the heart must have been due to dilatation since there was no evidence of disease upon his entrance to the hospital.

In all patients the pulmonary signs were those of a considerable area of consolidation at the left lower lobe. In addition to this, in Cases I and II there was a smaller area of consolidation at the base of the right lung. The cause of this has not been determined. In Case III there was pleural effusion on the left. At autopsy pleuritis was observed. Severe pulmonary edema occurred in Case I in whom cyanosis was marked.

The graphic chart showed the pulse and respiration exceedingly high, while the temperature was only moderately elevated. This ratio is not at all characteristic of other acute infectious diseases.

There was marked abdominal distention in all cases—most in I and least in III. The liver was enlarged and tender in Case II after some days. It was not palpated in the others. Edema of the legs and feet also appeared in Case II.

Perspiration was a marked feature in Cases I and II.

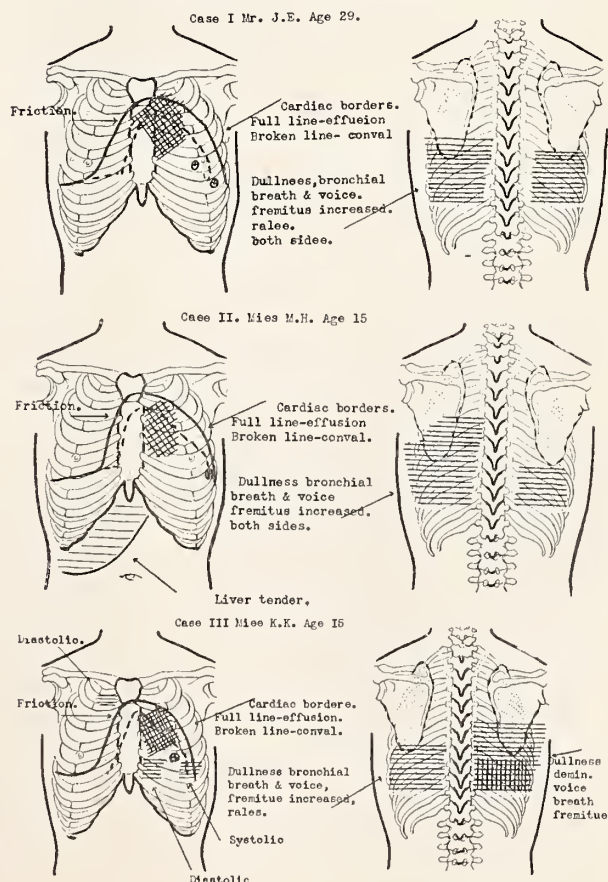
The roentgen study of the heart of Case III showed no signs of fluid, although the clinical and anatomical findings warranted the diagnosis of a small effusion. That of Case II was suggestive of fluid in that the heart shadow was excessively broad, reaching to the thoracic wall on the left, and was of the squat oval shape. The shadow of the great vessels was also markedly shortened. On the other hand, the cardio-hepatic angle was not diminished.

Aphonia, distended veins of neck, and pulsus paradoxus were not observed.

The treatment was in all cases symptomatic. Digitalis, caffeine, camphor and strychnine were used without appreciable effect. The distention was benefited by stupes and enemata. When Case I was most desperately sick, pituitrin was given, which seemed to relieve the distention and increase the volume of the pulse.

Paracentesis was considered in all cases, but not attempted. Case III was not in need of it. Cases I and II showed on examination that the ventricles were in contact with the chest wall nearly to the left border of cardiac dullness, and it was felt that the chances of withdrawing fluid in these circumstances were not sufficient to warrant the procedure. They both have recovered.

The one death of the series (Case III) re-



sulted in the patient who was least sick. A glance at her chart, however, shows a pulse and respiration far out of proportion to her fever. Death occurred on the thirty-first day of her illness—fifteen days after her temperature had become normal. Clinically, it was due to acute dilatation of the heart, and it was forewarned by a collapse which occurred the day before.

The necropsy showed a markedly enlarged heart. The pericardium was adherent to the pleura on all sides with recent fragile bands.

Both layers of the pericardium were thickened, probably the result of a previous infection. Between the visceral and parietal pericardium, and between the pericardium and the myocardium was a layer of reddish organized exudate. No fluid was present at this time, and while we feel justified in concluding that fluid was present at the time of her acute illness, it could not have been as great as in the other two patients. There was a sclerotic stenosis of the mitral valve, and sclerotic patches on the aortic valves with fresh hemorrhagic areas of endocarditis upon them.

SYMPTOMATOLOGY

	I Mr. J. E. Age 29.	II Miss M. H. Age 15	III Miss K. K. Age 15.
Pprevious infections	None.	Rheumatic Fever 1918-1920. Sore Throat. Tonsillectomy 1918.	Rheumatic Fever 1919. Tonsillectomy 1914.
Onset, Course	April 7. Rheumatic fever continued through illness. Acute tonsillitis.	April 1. Rheumatic fever, mild. April 9 Diag. Pneumonia left lower lobe. Dr. Rich.	March 30. Rheumatic Fever two weeks. Later returned to bed because of weakness. Normal T. P. R.
Pericarditis	April 20.	April 7.	April 26
Pain	April 22 precordial.	April 7 precordial radiating to left shoulder, sharp.	None.
Cough	April 23 severe.	Not severe.	Not severe.
Dyspnea	Very great, April 24-May 3.	April 7. Severe.	Not marked.
Mentality	Irrational May 1-10.	Normal.	Normal.
Abdominal	Distention marked.	Liver tender. Distended.	Normal.
Vomiting	None.	April 6.	None.

GENERAL EXAMINATION

	I Mr. J. E.	II Miss M. H.	III Miss K. K.
Appearance	Extreme dyspnea. Extreme cyanosis.	Marked dyspnea. Pale.	Comfortable. Pale.
Skin	Profuse sweats.	Sweats.	
Focus infection..	Acute tonsillitis	Tonsils removed.	Tonsils removed.
Lungs	Diagnosed pneumonia at onset because of signs in left lower lung. Later signs consolidation right lower.	Diagnosed consolidation whole left lower lobe. Later consolidation right lower lobe.	Signs consolidation left lower lobe. Later pleural friction. Pleural effusion right.
Abdomen	April 30 great distention	Great distention. Liver tender edge 7 cm. below cm. May 1.	Normal.
Veins, thorax and neck	No distention.	No distention.	No distention.
Joints	Arthritis throughout.	No arthritis since onset.	No arthritis since onset.
Urine	Albumin.	Albumin.	Albumin.
Blood	Granular casts. April 11. W. B. C. 14,000. R. B. C. 5,120,000. Hgb. 75.	Hyaline and granular casts. April 13. W. B. C. 26,000. R. B. C. 4,960,000. Hgb. 90. May 12. W. B. C. 18,000. R. B. C. 4,810,000. Hgb. 75. Of legs and feet.	Few W. B. C. May 3. W. B. C. 16,000. R. B. C. 3,890,000. Hgb. 75.
Edema	None.	Slight anasarca.	None.

CARDIAC EXAMINATION

	I Mr. J. E.	II Miss M. H.	III Miss K. K.
Borders dullness			
R	8 cm. in 4th i. c. s.	3 1-2 cm. at 4th i. c. s.	4.5 cm. at 4th i. c. s.
L	15 cm. in 5th i. c. s.	16 cm. at 5th i. c. s.	12 cm. at 5th i. c. s.
Upper	First rib.	Lower border 1st rib.	First i. c. s.
Apex impulse ..	Diffuse 4-5th i. c. s.	Strong 5th i. c. s. 14 cm.	Strong 4th i. c. s. 9 cm.
Friction			Soft superficial to-and-fro—disassociated from heart sounds.
Character	Grating leathery rub.	Grating leathery rub.	2-3 i. c. s. to left sternum.
Location.....	Base and 3-4th i. c. s. to left sternum.	2-3-4th i. c. s. to left sternum.	
Duration.....	April 27-May 14.	April 7-May 12.	April 26-May 17.
Murmurs	Diastolic at base early. Disappeared.	In convalescence diastolic of aortic regurgitation over precordium. Systolic at base.	In convalescence diastolic at aortic area and 4th i. c. s. left.
Heart sounds ..	Always fair quality. No accentuations.	Fair quality, but definitely diminished as effusion developed. No accentuations.	Systolic at apex. Good quality. No accentuations.
Shape of heart.	Wide at base. Cardio-hepatic angle obliterated.	Wide at base. Cardio-hepatic angle diminished, but less than in J. E.	Wide at base. Cardio-hepatic angle diminished.
Percussion outlines in convalescence ...	Upper 2nd rib. R. M. S. L. 12 cm.	Upper 2nd rib. R. M. S. L. 14 cm.	Upper 2nd i. c. s. R. M. S. L. 10 cm.

THE AMERICAN FOOT

HARRY B. KNAPP, M. D., F. A. C. S.
BATTLE CREEK, MICH.

With five million men in our country who but recently gazed for the first time upon their feet as a possible disability factor in their career, is it any wonder that there is widespread interest in the subject of the human foot? But the civilian no less than the soldier should have functionally perfect feet. While the army has been said to travel upon its commissariat, after all it is really the feet upon which we tread, which supports and propels man as an aggressive mobile organism no less in civilian than in military life.

This rather sudden focusing of the attention of the world upon the foot by reason of the army medical examination, has revealed some startling weaknesses, and has stimulated and aroused the interest of physicians and physical educators alike to the necessity for standardizing the treatment of this class of disabilities which is now becoming more and more prevalent. In this field, as in many others, however, prevention rightfully claims our first interest.

In order to secure the co-operation of people who have static symptoms and of those interested in their amelioration and prevention, a knowledge of the causes leading to weak foot should ever be borne in mind.

There is, however, no reason to believe that the foot is any weaker structurally than other parts of the body, providing it is not allowed to weaken or atrophy from disuse. To counteract the modern tendency to foot weakness physical educators and foot specialists of today must pitch their tents for battle against the very foundation of structural weakness, in that part of the anatomy capable of wonderful physical development, by encouraging the greater use of the foot as a carrier of body weight.

With transportation made easy, and with the telephone ever at our elbow, the walking habit is not cultivated as formerly and the increasing avoirdupois of those who thereby fail to keep down their weight by abundant exercise, thus adds obesity to weakness as a factor in breaking down the foot with its resulting symptoms.

If the technic of our modern life could be so arranged that the very foundation structure of man's motor and weight bearing organs should not sink into the depths of decadence from disuse, then and then only might we hope to circumvent the tendency to static disturbances now threatening us.

It is to be hoped that the saving of the feet of

the world may be accomplished to some extent by postural training, and recreational forms of exercise, and that the play grounds and athletic fields may serve to stem the tide against foot weakness now becoming more and more apparent.

But what is to be done for the great post-college class, and for the greater mass of folks who, owing to the division of labor must use their brains, and whose foot activities are limited to the stepping into an automobile, or the walk to the corner for a street car? That the feet suffer from disuse is only to be expected, and when we consider the great change in the motor habits of man now and yesterday, that the feet have not suffered more than they have from disuse is difficult to understand.

Taking these facts into consideration, is it any wonder that orthopedists of today are groping about for something with which to stabilize the feet? That they have not arrived at any very conclusive or universal method of overcoming foot defects, once they have been acquired, is evidenced by the varied opinions gathered by consulting this class of specialists. One school puts forth the dictum of supporting the foot arches by mechanical appliances, and with no more object in view than the transient relief of symptoms. Another school, equally authorative writes taboo against all artificial devices, and with foot exercises and postural methods goes forth to conquer the world of feet without reference to the temporary relief of symptoms, ever looking forward to ultimate and final cure.

Osgood of Boston, rather recently reviewed the muscular actions in relation to the discussion of the exercise treatment of weak feet, stating, "That the *tibialis posticus*, whose tendon lies in a groove behind the internal malleolus, most perfectly overcomes pronation by pulling inward on the tubercle of the scaphoid, fixing it in relation to the *os calcis* and preventing the rotation of the *astragalus*. The *tibialis posticus* is a weak planter flexor of the foot, but when its contraction is simultaneous with that of the *tibialis anticus*, which is inserted into the internal cuneiform, and a strong dorsal flexor, inversion and dorsal flexion is the result, and pronation changes to supination."

Weakness and relaxation of the tibial muscles means pronation of the feet. The constant pull of well toned tibial muscles means a high arch and freedom from foot stress and weakness. As an arch supporter the tibials are by all odds the most important muscle device to receive attention. The active shortening of these muscles can be accomplished best by the parallel foot position in standing or walking and by the simple exercise of rolling the ankle

outward, stretching the peroneal longus and brevis, but shortening the tibial muscles, thus working away from pronation. The feet should never be pronated while sitting or standing, as this stretches and relaxes the tibial muscles and the ligaments of the longitudinal arch of the foot, allowing the tibia to rotate on the astragalus, twisting it, together with the bones forming the arch, and forcing the os calcis to turn inward and downward. This condition is made worse by the tendency to walk and stand with the toes turned outward, which gradually produces deformity depending upon the tone of the ligaments and the amount of superincumbent weight.

With the disturbed foot condition and the reflected symptoms arising therefrom, such as leg ache, neuritis, growing pains, sciatica, myalgia, sacro-iliac and lumbar pain, there springs up disturbances in the balance of the body from muscle spasm resulting often in pelvic tilting in order to relieve pain, with loss of elasticity in the step and bodily poise, leading to general nervous and functional disturbances out of all proportion to the size of the original focus of trouble.

Disturbances arising in the feet, therefore often grow out of incorrect posture and obviously the posture specialist should stress the normal. The foot is only in the best functional attitude when the line of weight bearing passes through the center of the knee, and ankle joint to a point between the great and the second toes. This is physically impossible when the toes are turned outward. The forward parallel foot position is therefore an important requisite in flat foot prophylaxis.

Besides posture, and appropriate exercises, the determination of the style of the shoe is important. Owing to the generations of wearing of ill-fitting shoes, the foot has suffered greatly in its musculature, form and function. With conventional shoe-wearing habits of man unlikely to change much, we should therefore select a form of foot covering least likely to disturb the normal function of the foot.

Certain it is that when most of us reach the sensible age where we discover our feet are most useful members, rather than something to be sublimated into short, narrow and pointed encasements of questionable decorative value, and certainly valueless from the functional point of view, we discover, often too late, that the damage has been done, and we are the victims of corns, bunions, hallux valgus, metatarsalgia and pes planus.

The shoe should fit the lines of the foot as determined by its outline when traced in repose. It should consist of porous rather than colloid material, in order to insure free respira-

tory function. Feet enclosed in non-porous material are often overheated and relaxed by moisture and are more apt to suffer strain and relaxation, other things being equal. The high, tightly laced shoe splints the ankle and limits the freedom of the foot, as well as the ventilation of the skin of the foot. The low shoe has therefore the advantage from this point of view.

The flexible shank shoe so much advertised and recommended by the Y. W. C. A. is worn with comfort by certain people whose feet are not relaxed and whose weight is not above normal. Normal feet, as demonstrated by the wet foot track on a bare floor, carries the body weight along the entire length of the plantar surface, except under the arch at the inner border. To support the posterior end of the foot, i. e. the heel, above the level of the rest of the plantar surface providing no support to the outer border of the arch, is expecting too much of the foot mechanism. It is true many feet stand this strain without discomfort, but the correct method would provide the whole plantar surface of the foot with weight bearing surface. The heel should be broad and flat, not more than one inch in height, and if there is any tendency to foot pronation it should be raised a quarter of an inch on its inner side.

The question of an individual accustomed to the wearing of high heels and pointed toed shoes changing over to a low heel, broad-toed shoe, is a problem for an orthopedic surgeon, as any radical change in the style or shape of shoe, such as this should be supervised most carefully by the specialist as it entails the handling of an artificially developed foot with a shortened tendo-achilles, abnormally high arch, and distorted bone relations.

For the second degree flat foot with symptoms of foot strain in either the longitudinal or the transverse arch some form of accurately fitted mechanical appliance designed to relieve the strain by direct support until the foot weakness can be overcome by appropriate exercises, postural methods and correct shoe fitting, is necessary.

Flexible insoles in the guise of arch supports placed in shoes with flexible shanks offer poor prospect for relief of foot strain symptoms. Metal arch supports with spring devices or even rigid, but not made to fit the lines of the foot accurately as may be done from a plaster of paris impression afford scant hope for relief. On the other hand with a plaster impression model of the foot the exact lines of the relaxed foot may be followed and a plate made which accurately meets the requirements of each case. The use of 18 gage galvanized steel or Monell metal gives a durable, serviceable support which can be adjusted as the symptoms indicate.

In many instances foot strain is entirely relieved by the rigid shank shoe. Today the shoe market affords a variety of well made shoes having been constructed so as to keep the foot from sagging over the front edge of the heel and which furnish a solid weight bearing surface throughout the sole from heel to toe.

We have not attempted to cover the many special forms of weak feet such as rigid feet, metatarsalgia or Morton's toe, etc., or the weak foot resulting from special nerve or muscle paralysis, or the troubles arising out of traumatic injuries, malunited fractures, occupational deformities, etc., but rather have briefly touched upon that type of foot commonly known as flexible weak foot.

In all cases of foot disturbance the underlying cause of the condition should be sought. It may be found in an occupation which overstrains the ligaments, bad posture, or in a rapid or gradual increase in the body weight, all of which are subject, in reasonable limits, to the intelligent co-operation of the patient.

SUMMARY

By proper foot orientation, simple sensible direct methods of educating the public and especially the growing child, whose feet are yet plastic, into proper postural habits, by special foot exercises especially walking as well as intelligent shoe buying, and withal the intelligent application of the principles of physiology to a problem largely mechanical may we not hope to greatly increase the stability of man's motor mechanism, thereby contributing to the efficiency of the human machine in the performance of the world's work.

PRESENT DAY SYPHILIS

A Few Remarks on the Inactive and Latent Syphilitic and a General Resume of Treatment

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Only a few years ago the diagnostic teaching of syphilis was almost entirely restricted to the visible lesions of that disease—the primary, secondary and tertiary manifestations—but with improved technic and prophylaxis, diagnosis and treatment the external evidence is becoming rarer every day. We are therefore faced by the necessity of diagnosing syphilis by means of lesions other than those of the derma and in the future it will be chiefly the latent or inactive luetic—either acquired or inherited—who will present himself for diagnosis and treatment.

In conformity with the statement of Osler: "Know syphilis in all its manifestations and

all other things clinical will be added unto you," we should always consider syphilis first in all obscure conditions or in those patients in whom there may be a train of symptoms with no apparent cause. As it is manifestly impossible to cover the entire field in a short paper we will mention only a few points in connection with the symptoms and diagnosis in latent and inactive lues, both congenital and acquired.

In order to arrive at any conception of the number of latent congenital syphilitics, Wassermann tests should be done in both mother and child at all obstetrical institutions, as (1) 3.5% of newly born children have been found positive even in unsuspected cases—using placental cord blood. There would probably be more hereditary luetics if 40% of (2) married women with a positive Wasserman were not sterile.

In those children who escape the dermal manifestations of syphilis or who may appear normal there are many external evidences which indicate the syphilitic to those who search. The number is too great to mention but briefly the most important, such as the facial expression, frontal bossae, hydrocephalus of varying degrees, Hutchinson teeth, mental deficiency, retarded physical development, interstitial keratitis, iritis, saddle back nose, deafness, adenitis, dactylitis; while on a more careful physical examination many defects may be noted that can be due to syphilis in parents or grandparents, among which may be mentioned syphilis of the liver and other abdominal organs, syphilis of the central nervous system, epilepsy (according to some writers) (3). Those cases of congenital syphilis in which the infection can be traced to the grandparents are very few and apparently are becoming fewer (4), presumably due to the improvement in methods of diagnosis and treatment.

Barilan and Karmin (5) advance the idea that there are two types of hereditary syphilis—one which is due to the spirochete and shows a positive Wassermann test, the other due to a toxin and has a negative Wassermann. In the latter group they place epileptics, endocrine defects, malformations of the brain, etc. We have found many families in which some of the children had a positive Wassermann and marked evidence of inherited syphilis, while others had a negative Wassermann and no symptoms. The latter might prove to have a syphilitic toxin and develop defects later.

Remarkable improvement can be made in most of the cases of hereditary lues by prompt and efficient treatment, even those children of luetic parents who are apparently normal receiving treatment if the parents are uncured. Teyschl (6) thinks syphilis is the basis of all nervous diseases of children and advises a diag-

nostic lumbar puncture in all such cases. Efficient treatment continued for an indefinite period should keep the disease under control even though the Wassermann should continue to be positive (7).

In acquired syphilis the diagnosis during the period of inactivity or latency is much more difficult, especially in women, than in the inherited variety. It is generally conceded that unsuspected and untreated syphilis is apparently more likely to be followed by symptoms of central nervous system involvement and even though all clinical signs may be absent, the nervous system should not be overlooked as a possible area of infection.

While many cases of acquired syphilis lack dermal and mucous membrane lesions, that does not mean that the spinal fluid may not be involved early, as Wile and Halsey (8) found such evidence in 22% of 221 primary cases, Nicolau (9) found 18 out of 51 with a lymphocytosis beginning about the third week which he considers to mean a generalized infection. Even though the spinal fluid is negative at first, as invasion occurs during the first few months (10) the positive findings may be discovered at any time later. Solomon and Klauder (11) cite cases in which involvement of the central nervous system is present, but is accompanied by negative spinal fluid findings.

It is difficult to say whether there is an actual increase in syphilis of the nervous system although the improved methods of general and laboratory examinations disclose more cases constantly. Fordyce and Rosen (12) state that 25% to 30% of all secondary luetics show central nervous system involvement, but that the clinical increase is more apparent than real. While 10% (13) develop late neurosyphilis, Fraser and Duncan (14) believe that the increasingly large amounts of arsenic have a tendency to injure the cerebrospinal axis and that the arsenical spirocheticide may injure the nerve tissues. If all the spirochetes are not killed the damaged central nervous system would offer a weakened site for attack. They also believe that rapid sterilization should be attempted only before generalization, as otherwise the rapid method does not allow the formation of antibodies.

The usual evidence of nervous system involvement in latent cases may be loss of patellar reflex, numbness in the feet and legs, difficulty in walking in the dark or with the eyes closed, lack of co-ordination, tabetic bladder, which may be first disclosed by the cystoscope, loss or diminution of the sexual function, abdominal or gastric pain which may closely resemble appendicitis, gastric ulcer or cholecystitis; fixed or irregular pupils, increasing deafness, optic tropholy. The presence of any of

these symptoms should at once call for more extended examination especially of the blood and spinal fluid, and treatment appropriate to each individual case should be begun. Raeder (15) found that 30% of 428 cases treated in four years showed a definite improvement, but great care should be used in treatment as many of these latent neurosyphilitics go to pieces rapidly with vigorous treatment.

In a series of excellent articles Wile (16) has discussed visceral syphilis and states that involvement can occur in all the organs, most frequently in the liver where it produces the various symptoms of hepatitis. Gummata are the most frequent lesions and quickly disappear under treatment. As they are replaced by scar tissue it often happens that the cure of the lesion is followed by an interstitial hepatitis with increasing pressure from scar tissue.

The other abdominal viscera are infrequently involved and the symptomatology is that produced by other diseases, the true etiology being discovered only with a positive Wassermann. This applies to the lungs as well, but syphilis of the heart and aorta is being found more and more constantly. Reid (17) states that aortitis is present in 3.5% of necropsies and is one of the most common and serious findings in all cases of acquired syphilis. He believes non-syphilitic aortitis is rare and it has been stated that 80% of cases of aortitis have a positive Wassermann.

Many latent cases have none of the foregoing signs indicating the presence of some visceral or nervous system involvement and only recently has work been done to demonstrate the presence of syphilis by other means.

It is not surprising that the patient may not suspect syphilis when we consider that many infections are extragenital, some may be direct blood stream inoculation, others may be a double infection or the chancre (18) may be of microscopic size and easily overlooked. Involvement of the regional lymph nodes, however, invariably follows the primary infection, Eberson (19) stating that spirochetes were found in the regional lymph glands and blood stream of rabbits in 7 and 26 days before the appearance of the lesion at the inoculation site. No spirochetes were recovered during the incubation period within the rabbit testicle, but they were recovered unaltered in the glands and blood stream in from two to seven days after inoculation. By using an emulsion of lymph nodes Brown and Pearce (20) demonstrated the viability of spirochetes in rabbits with a latent infection. They (21) also showed that the inguinal lymph glands were involved within 48 hours after inoculation of the rabbit testicle, and that invasion of the blood stream

had occurred by the time the inoculation lesion could be recognized—even as early as one week.

The presence of lymphadenitis is now being utilized in the diagnosis of both primary and latent lues, Droop (22) recommending gland puncture if the primary sore is inaccessible or contaminated by many similar organisms. Engman and Eberson (23) found 3 out of 14 latent cases with inguinal glands where the spirochetes were viable. They (24) also examined the semen in 17 latent cases and found the organism in two cases.

The value of the Wassermann test, luetin and the spinal fluid examinations should be regarded as relative. A discussion of their value would constitute many papers, but it should be remembered that the Wassermann is not infallible and that positive evidence of lues should outweigh a negative test, but that a repeatedly positive Wassermann in a latent case should be strong presumptive evidence of syphilis. In diagnosing latent syphilis the weaker reactions should not be allowed to outweigh the physical findings and history, but they are of value in treated cases. The luetin test is of most value in congenital and tertiary cases, but should never be used after the ingestion of iodine. The recent development of the spinal fluid examinations has enlarged our diagnostic ability, the colloidal gold curve being especially valuable in prognosis as well as diagnosis.

It is now generally conceded that each group of syphilitics and even each case will require treatment especially adapted to that group or case, that which is given to primary cases being prohibited in old, visceral, heart or nerve cases.

The abortive treatment will fail in the vast majority of cases if invasion of the lymph nodes and blood stream occurs early, as the work of Brown and Pearce would indicate. Hecht (25) excises or destroys the chancre, gives three or four arsphenamin injections and fifteen calomel injections and believes in the abortive cure within certain limits. It would almost seem necessary to begin the administration of arsphenamin immediately after any suspicious exposure if an actual abortion of the disease were to be accomplished.

Levy-Bing and Gerbay (26), however, think that abortive treatment must be begun before the 37th day to be effective.

The treatment of the later phases of syphilis can be outlined only in a general way. Keeping in mind the fact that the patient is only human and that the spirochetes are distributed to all parts of the body, no attempt should be made to completely rid the host of the invader to the detriment of the host. It is not necessary to produce a nephritis or hepatitis from treatment to enable the patient to complete his life

comfortably nor is it worth while to kill the patient in order to cure his disease.

These points should be borne in mind during the administration of either mercury or arsphenamin, at the same time remembering that the most efficient plan of treatment is the intermittent one which is less liable to damage the viscera of the patient. The total amount of either mercury or arsphenamin and the length of time treatment is to be continued are factors which will vary in each case according to requirements, but a brief discussion of the merits and demerits of the various methods and preparations may be of some value.

The internal, inunction and injection method of giving mercury all have a certain place and a definite value to me in the order named. I use the internal method only in a case of absolute necessity, as it appears to me to offer the disadvantages of inaccuracy of absorption rate, self medication, an increased liability to stomatitis, gingivitis and the production of a "mercury fast" spirochete. The inunction method is painless but is also a form of self-medication and in addition has the disadvantages of inaccuracy of dosage and inconvenience of application. If properly carried out this method can be as effective as any other, but the great majority of syphilitics will neglect this treatment unless constantly supervised. The injection method appears to me to fulfill the requirements of mercury treatment—which is to maintain the highest point of saturation with mercury compatible with undamaged viscera. It has the advantage of frequent observation of the patient, accuracy of dosage, lessened liability to produce stomatitis and gingivitis, rapidity of action and a fairly definite rate of absorption. It is true that most injections are painful and also are financially less attractive to the patient, but I believe the requirements can be complied with more nearly by this method, using either soluble or insoluble preparations provided the rate of absorption is kept fairly constant and as high as is possible with safety.

The newest method of giving mercury (intravenous) does not appear to me to have a logical place in the routine treatment of syphilis. In certain cases rapid effects may be desired when arsphenamin is contra-indicated and in these cases mercury intravenously fills the requirements, but it would appear to offer more opportunity for renal damage and it would be extremely difficult to keep the rate of absorption at a constant, safe level.

Lomholt (27) believes that mercury does not act directly on the organism, but stimulates the bactericidal power of the human organism. If that is the case the mercury given intravenously

would be in the body a shorter time than when given in any other way.

Sabouraud (28) states that those patients who had been treated with mercury exclusively and got a negative Wassermann showed no relapse, while those treated with arsphenamin exclusively but had the treatment interrupted showed a greater positive Wassermann.

Ramsey and Groebner (29) state that mercury salicylate should be given twice a week instead of once and that mercuric chloride is eliminated for six or seven days.

Bastron (30) uses mercuric chloride two or three times a week in .1 grain doses.

Cole, Littman and Sollmann (31), investigating by X-ray, the absorption of mercury, think gray oil is dangerous and inefficient, while mercury salicylate is satisfactorily absorbed in about four days in the gluteal muscles, but is not uniform in all cases.

The results of toxic quantities of mercury are the same no matter by what method or what preparation administered and the degree of tissue injury bears a direct relation to the actual amounts of pure mercury absorbed (Kolmer and Lucke) (32).

Hazen in his work on syphilis states that the toxicity of mercury intravenously is four times that intramuscularly and is also directly proportional to the amount of mercury contained. This varies in the different preparations, being 58% in mercury salicylate, 45% in mercury benzoate, 74% in mercuric chloride, 83% in mercury oxycyanide and 50% in mercury succinimide.

In the use of arsphenamin we have gone far from the original dictum of Ehrlich. Some of us give very little, others have given moderate doses every two or three days in certain cases for two or three weeks at a time. Not only is there one brand of arsphenamin on the market, but there are many.

The general consensus of opinion appears to be that the arsphenamin of today is safe enough if used intelligently and in proper cases and doses, but that the liver should be carefully watched just as the kidneys are while giving mercury. Many cases are on record where it is stated that hepatitis has been due to arsenic, many cases of exfoliative dermatitis with fatal termination and many cases also of fatal termination due to carelessness or inexperience of the operator.

Schamberg, Kolmer and Raiziss (33) state in therapeutic activity 0.6 gm. of arsphenamin is equal to 1.05 gm. of neoarsphenamin, but that 1 gm. of neoarsphenamin is safer than .6 gm. of arsphenamin.

Single, small or subcurative doses of arsphenamin are of no value and do not pre-

vent reinfection in insufficiently or uncured patients. (34.)

Mehrtens gives up to 4 gm. of neoarsphenamin in 100 C. C. of solution per rectum and states that he considers his results as good as those obtained by other methods (35).

It has been the writer's practice in selecting any particular brand of arsphenamin to use only one brand that has proved to be productive of the best clinical results with the fewest untoward effects and to use that brand until toxic symptoms or poor results warrant a change.

One of the newest of the arsenic family, silver arsphenamin, is being extensively tried out at present and the reports vary somewhat as to its efficiency.

Fordyce (36) thinks it is a valuable addition, Parounagian (37) believes lesions respond more promptly than with the other arsenicals. Michelson and Siperstein (38) noted marked effects in small doses, but believe it is too early for final judgment; Guy and Jacob (39) think it worth a trial and may be used later for those with idiosyncrasy to arsphenamin, but that argyria may be anticipated; Watson (40) reviews the work of the continental writers and finds the same diversity of opinion.

At present it would appear that silver arsphenamin can be used in smaller doses with very slight reactions, but apparently it does no more than efficient arsphenamin treatment will do. It may ultimately succeed arsphenamin, but it should always be borne in mind that argyria is a possible sequel, although only one case has been reported (41) (and that a doubtful one).

There are various other arsenical preparations on the market which purport to be as good as arsphenamin, freer from danger and easier to give, but they are all varied combinations of sodium cacodylate, mercury and iodine, the first of which is a good tonic, but worthless in the treatment of syphilis.

Chargin (42) has made a comparative study of some of the intensive methods, using both arsphenamin and mercury and has come to the conclusion that clinically and serologically all methods were equally good, but that the less intensive had a greater margin of safety.

In these days of intensive and intravenous medication it is well to pause occasionally and consider the solutions and drugs that are being poured indiscriminately into our patients' veins and wonder whether it is the wisest plan. In this connection Brocq (43) states: "When we think of the long time it took before we learned of all the possible misdeeds of such common drugs as the salicylates, antipyrin, orthoform, etc., we feel more respect for the toxic sub-

stances which at present we are injecting by the vein in large doses, chasing the microbe without worrying as to the possible injurious action on the tissues."

In concluding the discussion on the effects of mercury and arsphenamin, a summary of Schamberg's (44) observations on that question will give the most concise opinion. He states that while the most damaging solutions of arsphenamin are acid solutions, milder changes have been found due to neoarsphenamin, all these changes probably being due mostly to arsenic.

Short courses of mercury in rats were productive of structural changes in the kidneys, even when the mercury was administered in a manner comparable to the old form of gradually increasing internal medication until toxic symptoms developed. When the experimental animals had been treated long enough with mercury a perivascular cell infiltration about the vessels of the brain was also noted by Kolmer and Lucke, the structural alterations in all organs being proportional to the amount of pure mercury absorbed into the blood stream.

While the arsphenamins and mercury in therapeutic doses produce structural alterations in the various organs, these changes are probably ordinarily repaired, but the kidneys especially require watching during mercurial treatment, the liver during arsphenamin. These harmful results can generally be avoided by proper care and judgment in the administration of both mercury and arsphenamin. Large doses of mercury and arsphenamin should not be used synchronously; if they are the doses of each should be inversely proportional to the other. It would be better to give mercury after the arsenic.

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MODERN VIEWS OF CANCER*

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The first generalization regarding cancer was that of Cohnheim—that tumors developed from misplaced embryonal cells. These cells, lying dormant, retain their virgin energy, and suddenly begin to grow late in life, when other body tissues have lost their growth vigor. Embryonal cells have more inherent growth tendency than any other body cells. This is as true today as it was in Cohnheim's day, and in certain types of tumors (teratoma, dermoid) embryonal misplacement is probably all important. In other types, embryonal remnants are favorite locations for malignant growth (pigmented moles, thyro-glossal, branchiogenic vestiges), and the predilection of cancer for situations where embryological structures change (e. g. lip, cardia, rectum, anus, etc.) must be related to early body development—heaping up of cells at the junction, perhaps.

Modern views must take note of the above facts, but the vast majority of tumors develop apparently irrespective of misplacements, and the mere presence of embryonal or superfluous cells does not mean that neoplasm will develop. Also, if the misplaced cells grow, they may produce finished adult tissue rather than tumor.

*From the Surgical Service of Harper Hospital. Dr. Max Ballin, Director. This resume follows the general principles of the discussion of the subject in Ewing's *Neoplastic Diseases*. Read before the Wayne County Medical Society, October 24, 1921, as part of a symposium on cancer introducing "National Cancer Week."

Of much wider application, therefore, is Ribbert's doctrine of cell autonomy—the principle that cells removed from certain growth restraints, from the forces of "tissue tension" which normally maintain growth balance, will at once start on riotous autonomous new growth.

Some of the complex forces of tissue tension, which hold the body cells in check, and the disturbance of which may allow the start of unlimited growth are:

- (1) Mechanical pressure.
- (2) Specialized function.
- (3) Nutrition.
- (4) Organization.

MECHANICAL PRESSURE

Familiar instances where the release of mechanical pressure of one cell upon another influences malignant growth are not hard to find. Encapsulation often determines whether a tumor is benign or malignant. An adenocarcinoma of the breast may be almost benign for years, and then, suddenly bursting its capsule, become wildly malignant. Trauma isolating cells from their environment is often concerned in inaugurating neoplasia. Fibrous encapsulation is Nature's defense against cancers. Experimental cancers are seen to regress with fibrous tissue encapsulation, and the same phenomenon of connective tissue enclosure of carcinomatous masses, holding them in check, is observed in man. Metastases are killed or subdued in this manner. The fibrous enclosure may break down and recurrence take place years afterward.

SPECIALIZED FUNCTION

The work of body cells is divided between growth and function. When a cell assumes a specialized function, such as secretion of gastric juice, milk, or mucus, covering the body, etc., its capacity for growth disappears. Specialized normal function is thus a restraint to growth. In most organs, there is a substratum of cells whose purpose is growth, chiefly for replacement of this secreting or otherwise specialized layer (e. g. basal cell layer of skin, cells at bases of intestinal villi, supporting cells in mammary acini, and in the prostate. Neoplasia always starts in this layer, and it is often preceded by loss of function or over-demand for growth. Thus, cancer is common in the breast and uterus at the time when the secreting epithelium of these organs atrophies. McCarty, through extensive histologic studies, has shown that the earliest change in carcinoma of the breast is disappearance of the secreting layer and hyperplasia of the supporting layer. These hyperplastic cells soon are seen in the stroma; then the demarcations between acinus and stroma are confused, and finally acinus and

stroma are indistinguishable. He has studied similar changes in cancer of the prostate, skin and stomach. The supporting cells, he traces from the embryological stratum germinativum. Their function is growth for renewal of the specialized differentiated layer. Adami similarly expresses the relationship between function and growth as follows: "Cells which have lived a long while without performing function have assumed the less active, vegetative stage. They have lost the habit of function and assumed the habit of growth."

NUTRITION

Tumor cells have an abnormal capacity to absorb nutriment. In certain instances a hormone has been supposed, or that they exerted some influence on neighboring cells. Why they can assimilate so voraciously is, however, a very obscure problem.

ORGANIZATION

Cancer has lost the control of the organism. Regeneration of a limb in a crustacean, of a new head in a worm, the development of the normal chorion, all show many features of the growth of a tumor, but in contradistinction, they have a definite purpose—they are under the control of the organism. Cancer has lost this control.

Cell groups frequently become detached from their normal habitat during pathological processes. New connective tissue growing between epithelium may snare off cells and thus isolate them. W. J. Mayo believes that the violent churning of a stomach with gastric ulcer is a very favorable procedure for isolation of epithelial cells. These cells have lost their normal restraints, and may become a nidus for the development of cancer. Round cell infiltration beneath epithelium similarly creates an abnormal environment and nullifies restraints to growth. Last spring I briefly mentioned before this Society* some of the chronic inflammatory and other irritative processes which frequently precede cancer. So many cancers follow long continued chronic irritation, that any conclusion on cancer must take note of the importance of this phenomenon. In terms of cell autonomy, these successive generations of cells, subjected to trauma repeatedly and without rest, gradually lose the body growth restraint. At some point there is disturbance of the normal rate of growth, size of nuclei and cytoplasm, blood supply, and relations to neighboring cells—an autonomous new growth develops. As a matter of fact, these stages can often be observed in early cancers, especially of the tongue or stomach.

Thus it is seen that we have very accurate

*Some Facts Regarding Cancer. Harry C. Saltzstein, American Journal of Surgery, April, 1921.

knowledge of the transformations cells undergo while developing into malignancy, and we have quite comprehensive observations regarding what processes precede this change. Why, however, they suddenly proceed to riotous overgrowth, why they break their restraints, why they suddenly invade the stroma instead of remaining confined and showing only hyperplastic changes, is still a puzzle.

The parasitic theory of tumor growth is as old as the history of medicine itself. The research and experimental work expended upon proving or disproving the parasitic nature of cancer fills libraries, and a good deal of it is quite bizarre and at a tangent from the real problem. Statistics are difficult to interpret, for, among the complex factors involved are improved diagnosis, control of infectious diseases, changing age groups, etc. Groups which have higher cancer incidence may be able to have more expert medical service, or employ physicians oftener, or may en masse escape the mortality of infectious disease in greater numbers and hence reach cancer age in greater proportion.

Since the advent of bacteriology, bacilli, cocci, spirillae, mycelia, blastomyces, yeasts, amoebae have all been cultivated from cancers. The number has been legion, and in a few instances tumors have been reproduced. Most of the tumors have been merely granulomas—hyperplastic inflammation with a tendency toward metaplastic changes, with the possibility of these passing over into tumors. Several fundamental objections have been advanced against a parasite being the sole cause of cancer, so that the problem is not quite similar to that of an infectious disease. The anatomical and physiological characteristics of tumors are different from those of any known inflammation; the isolation of cells, abnormal size (overnutrition) of nucleus, the different types of metaplasia, the progressive growth, are not seen in infectious processes. Infection produces degeneration and wasting by toxic agents. When infectious granulomata, as tuberculosis, develop emboli, the cells die, and the transported bacilli excite inflammatory processes. In cancer the transported cells grow everywhere they lodge. There must be a different parasite for each of the many different tumors. The parasite must live very closely—in symbiosis—with the cell, multiplying with the cell, being transported with it, showing no immunity reactions except as manifested by the cell—in short must be almost identical with the cell.

Though cancer will not be shown to be a parasitic disease, according to present day

views, micro-organisms, worms, yeasts, etc., may have a very definite role in the cause of cancer. Animal parasites, or their derivatives, when growing continuously in tissues have a peculiar capacity to excite proliferation. This process, once nutrition and function are permanently unbalanced, may attain sufficient momentum to continue into neoplastic growth—become autonomous by reason of release of growth restraints. The cell, however, is still the chief actor—"once the cancer has taken on active growth, the mere destruction of the parasite would not modify the properties already impressed on the cell." (Adami.)

In the lower animals, the momentum of tumor growth is more easily established than in man, and it is not so surprising that neoplasms have been apparently initiated in animals by micro-organisms. Rous developed a chicken sarcoma which could be reproduced by a filterable virus. Nuzum has recently reported some brilliant experiments, but, I think, the interpretation must be along these lines. Using the Crocker transplantable mouse carcinoma, he isolated a micrococcus similar to that recently obtained from polio-myelitis, and after cultivation on Noguchi ascitic fluid media, it grew on all laboratory media. These subcultures when injected into mice produced small tumors which regressed. If the tumors were cut into and then traumatized, the virulence of the micromommu was multiplied. If the subculture was injected alongside a slowly growing ordinary transplanted tumor, there was marked sudden increase in growth. In this experiment, the organism was seen swarming in the tumor cells, and it does seem as if in this instance, the requirements of symbiosis—a parasite living with and within the cell, continuously stimulating it, were fulfilled. Nevertheless, as Nuzum states, as Rous stated, as all experimenters in this field have finally concluded, there are always two factors, the parasite and the cell. Alone, Nuzum's micrococcus produced only a very indolently growing tumor. The parasite was an intense irritant, which only when aided by tumor trauma, etc., produced rapidly growing neoplasms.

There is still the same enigma: Why does the cell physiology suddenly change so as to permit it to have, or endow it with, this unlimited new growth? Why, of all the cells subjected to the same chronic irritation, do only a very small percentage become neoplastic? The solution may be wrapped up in future developments of cell physiology and chemistry. (For example, cancer shows a marked predilection for acid media as stomach, uterus, colon, and is very rare in alkaline pabula, such as the small intestine.) The conclusion seems growing that

until more of these laws are learned, for any practical application, for the rationale of any cancer therapy, the sum of our knowledge is that cancer always begins locally, and only when removed then is it curable with any degree of certainty.

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CHAIRMAN'S ADDRESS—SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY*

G. E. WINTER, M. D.
JACKSON, MICH.

I wish to thank you for the honor of having made me chairman of your section for the past year.

I fully appreciate the responsibility and obligations placed upon me, and more especially on our worthy secretary in serving such an important section, and what appears to be the unkindness of fate in having to appear before you at this time with an address.

In searching about for a topic for this occasion one feels more or less handicapped, as an essay on any of our important subjects would seem to be more or less out of alignment for the occasion, so one has to delve on the shelves of oblivion to find a suitable topic.

In analysing medical topics among our fellows, and it has been my privilege to meet a considerable number during the past couple of months, it occurred to me there was as much interest centered in questions of the ever recurring ill omen "State Medicine" and its associated evil, the flourishing condition of our too often, illiterate, brazen and many times vicious quacks that are running wild throughout this whole country.

Now we have, I think, in a measure, learned that legislation alone is not going to hamper them in the least, for that is what they are seeking. They wish to pose as martyrs before the ever groping altar of public opinion, for then only can their cunning, timely, thoroughly organized and highly paid propagandists get in their bulls eye shots by appealing to the often misguided public mind.

How can we best meet them!

For a moment let us reflect on the outcome of such a thought. Let us consider the class of individuals we are confronting. I have no doubt our daily "Ads" would look like poor etchings compared to the work of masters of art in our press.

Suppose we do a little checking up on our own slate and reflect.

First we will touch upon the eye. Do we do

all we should to give our patients the benefit of say, due inspection of lids, sac, cornea, anterior chamber and lens? Do we look for muscle palsy and conjugate muscle movements; for accommodation and convergence, taking palpable tension, at least, in patients past middle age? Do we take, then, a general survey of fields by some suitable method, to check up on scotomata, endogenous disease, as syphilis, tuberculosis, kidney diseases, focal infection, detachments, growths, etc.? Do we look with our aphethalmoscope, more especially, in our older patients, for changes in retina and disc. Do we do our refracting as befits a thorough specialist, using mydriasis in all cases under 15 years of age, and in many of our hyperopic cases with symptoms definite up to middle age, using atropine, homatropine or hyoscine in less severe cases, following with miotics as a means of preventing the glaucoma simplex symptom.

I might say in this connection the application of the pin hole and placedo discs are of great benefit in refraction work.

The pin hole disc so important in shutting out all confusing, peripheral rays and allowing the patient to use a clear, sharp, central vision, giving us our cue to his full total vision. The placedo disc so important in corneal irregularities.

I wish also to state that the retinoscope is the great *ideal* in refraction work, both with and without mydriatics.

ANALYSIS OF HEADACHES

An inflammation in the cornea or sclera will result in sensation of pain within the eye ball—whereas inflammation of iris or ciliary region will give us sensation of pain about orbit, especially forehead, temple, ear or upper teeth.

Headache, without inflammation, would naturally suggest hypermetropic astigmatism or muscle anomaly.

In all severe headaches, examination of urine, blood pressure, and optic nerve should always be made, especially in older patients. Headaches coming on more or less severe in late afternoon or evening, with disturbances of vision and color rings, but recurring with greater frequency, disappearing with sleep in contradistinction to syphilitic headaches, beware of prodromal glaucoma.

The application of cocaine or other anæsthesia to the region of the nasal ganglion will often alleviate many aggravating symptoms about the eye and surrounding parts.

Just to digress a moment, I wish to speak of Professor Fuchs syndromes on glaucoma, (which is such a bugbear to all who do eye work) so beautifully illustrated by lantern slide demonstrations during his lecture course in Chicago the past month.

*Read at the Annual Meeting, M. S. M. S., Flint, Mich., June, 1922.

He showed first, cases of only 25 hours duration and the simile of deterioration had already left its mark.

These were carried through each stage to complete destruction of globe.

The syndrome of glaucoma simplex as related by him were: A hypermetropic eye usually smaller than normal, that is, cornea and globe.

An over-developed ciliary muscle with enlarged ciliary processes—a lens gradually increasing thirty-three and one-third per cent in size from 20 to 60 years of age—a small lenticular space with lessened anterior and posterior chamber.

An iris usually thicker, more especially at the filtration angle than normal and then an exciting cause, and the eye starts out on a toboggan to destruction. First lens angle becomes lessened or obliterated, pressing upon ciliary processes and they in turn upon root of iris, obliterating the anterior and posterior chambers and the whole anterior uveal tract with lens, comes into close or direct contact with cornea.

He also showed us many results of the different operations for glaucoma, with the result that destined the eye to the pathological ward.

He also stated that a very large per cent of trephine operations for glaucoma ultimately resulted in detachment of choroid and retina.

What a teaching lesson this would be, thrown upon the screen for public analysis.

A few demonstrations of this kind to the public, upon topics pertaining to medicine, and we need have no fears nor ask no favors.

It also teaches us to beware of this syndrome explaining it thoroughly to our patients; re-fract most carefully, and if we wish to save their eyes for useful purposes, begin in advance of the calamity.

Of great interest was the lesson to be learned at the scleral ring, for here instead of a large bundle of nerve fibres bending over scleral ring as in a normal eye, the pressure here had caused atrophy and only a small remnant of the once large nerve bundle was left. The nerve proper sinking back into optic sheath and atrophy, alike, developing in optic nerve as well as in retinal fibres.

OUR WORK IN OTOTOLOGY

Do we use our tuning forks as intelligently as we should, let us say the high, middle and low forks in our ear work in testing the cochlear tracts, also learning if bone conduction is greater or less than normal.

If greater, would suggest catarrhal middle ear deafness, if less, would suggest lesion of labyrinth, eighth nerve or brain stem.

To illustrate, one simple suggestion after mastoid operation the C fork over vertex would naturally lateralize to operated ear, but say things are not going well and we place fork again in same position and it lateralizes to good ear, which suggests dead labyrinth on diseased side and probably intracranial complications.

Do we just tell our patients complaining of recurring and more or less distressing vertigo that it is only some intestinal, heart, kidney or uterine disturbance and not to further heed it. Well it may be toxemia or functional, also it may be pathological and a very valuable diagnostic hint of some very serious labyrinth or brain stem trouble. These duties should never be passed over too lightly if we wish to maintain a high standing in our respective communities.

RHINOLOGY

Do we all feel satisfied we can locate all diseased areas in this very important region? True we are learning to respect the turbinates, also to correct a badly deflected septum.

Intranasal sinus infection surely plays a large part in destroying the health, comfort and sense of smell in our patients.

Are our treatments and operations all that could be wished for in these unhappy cases?

I truly do not believe so, for if we could see our patients as they find themselves after we finish with them, or they with us, we, I am sure would not always feel overjoyed with our results.

Now I have taken you over some bumpy roads, but alas we are descending into the green, velvety valley of dreamland where all is serene and tranquil.

I wish to state, however, to members of this section that even here you are not to receive any recompense for this golden gate.

Having conversed with many of you on this later topic it was few words of consolation I could get.

It has fortunately been all ironed out for you in such a satisfactory way that leaves little to be said or done.

Our abdominal brother has seen fit to ascend from the region of fat and depths of obscurity to a herculean attack upon the open gateway of "No Man's Land," and with little hesitation and less procrastination claims a success of which we could only dream.

In fact if he succeeds in getting our pillars and everything clean maintains a batting average of at least one hundred and twenty-five per cent.

Now this eliminates our best efforts and we can only hope, by groping along, to lessen if possible many of the undesirable results that follow in our wake, such as an over abundance

of scar tissue, a raw, irritable, dry throat, an attachment of anterior pillar to base of tongue and last, but not least, to look into a throat of our doing, but sometime ago forgotten, and remark: "You have a bad tonsil on this or that side that needs removal, or some darned fool has done a rotten job on your throat," for that ever present bugbear infiltrating, lymphatic tissue is ever ready to spring up and spoil one of our prize dissections.

It is to be hoped that from the able research work being carried on by so many capable men, something definitely good may result.

We still have focal infections from teeth to consider in all intranasal and eye inflammations and here is where the X-Ray will do us great good without which we could not do.

It has been my lot on more than one occasion, after an examination, to refer the patient to the rentgenologist and dentist and expect later to enjoy some of the bacon, to have the patient return and say: "Well, Doc, I am all fine now," and wish me many thanks, so now I have added a thanks account in my ledger.

Yet I have one grand and glorious feeling in knowing that the X-Ray man and dentist will have to help me solve my income tax problem.

It was my good fortune to be in Chicago during the time of Illinois State Society meeting, where they have inaugurated a post graduate clinical program lasting five days.

The first two days being devoted to eye subjects, the next day to papers, discussions and business meetings, and the last two days to ear, nose and throat topics.

Through the efforts of its excellent and energetic chairman, Dr. A. H. Andrews, this course was arranged with splendid papers and lantern slide demonstrations in the morning from 8 to 12, while the afternoon was devoted to clinics at the different hospitals.

In all details it was a snappy, highly instructive, well attended and thoroughly appreciated clinical course and could be well modelled after by many of our states. This has been now arranged as an annual affair with a special fee of \$3 per member.

My one object in this paper was to see if the time was not ripe for this body to discuss and consider the advisability of doing more and better post graduate work, for it is only by elevating the standard of the society as a whole, that we will accomplish anything worth while, for the public daily are demanding better work from us and when we can say we have finally put that across we need have no fear from each other, the public, the press or any pathy.

DISCUSSION

DR. WILFRID HAUGHEY, Battle Creek: I think postgraduate work is a good thing, but in many places it could not be handled. In Battle Creek it would hustle us, although we could do it.

But in small cities the size of Muskegon, Jackson and Battle Creek it is apt to be difficult to work up interest and enough clinical material to last three or four days.

DR. HOWARD E. PEIRCE, Detroit: Two years ago after the meeting I tried to get a list of the men who had registered in the Eye, Ear, Nose and Throat Section, but it was impossible to get it. I have tried to keep a list of the men attending, but that does not tell us whether a man is specially interested in this section or whether he has just dropped in. When the general call is sent out for papers in any section there are papers offered, but it is a question whether the man is specially interested in this section or not. It would help the new secretary very much if we had a definite list of the men who are vitally interested in this subject.

Another thing that would add to the interest of the section is this: We have one or two visitors each year, and these visitors necessarily are offered their expenses. The State Society is in such financial condition that every section must pay their own way, and it means an expense of some \$40 to \$50 every year for railroad fare of the guest, lanterns and things of that kind, so a small contribution of say one dollar would take care of that very nicely.

DR. G. E. WINTER: Last winter the Wayne County Society started something—they procured Doctor Fletcher of Philadelphia to give a course of ten or eleven days. Many of us from over the state went down to Detroit and stayed during the entire time of that course, and we got some very valuable information. We do not need to put on a course like the one I spoke of in Chicago, because that would be impossible except in places like Ann Arbor or Detroit. Prof. Fuchs came to this country through the efforts of Dr. Brown of Chicago and Dr. Knapp of New York. These two men arranged all the courses he gave. If we had had a strong organization in this society, he would have come to Detroit.

DR. B. N. COLVER, Battle Creek: It seems to me the chairman has mentioned three important points. This section is rather loosely organized because we get together for two or three days, and the rest of the year we hear from each other only sporadically. But we ought to be organized in some sort of way so that we could co-operate, possibly through the largest organization in this state, the Detroit Oto-Laryngological Society, and in that way the men in the smaller places would get in touch with each other through a central organization. It seems to me it is worth while considering. The question of raising the money is easy.

The second point is the question of post-graduate work. That could be worked out through this organization itself in co-operation with the Detroit group and the Ann Arbor group. It might be done by bringing one nationally known man each year and having a definite course.

The third point is one which he mentions as a menace to our specialty—the quacks and irregular practitioners of different sorts. It seems to me the answer to that question is higher standards among ourselves, plus education of the proper sort, and the way to make that education of the proper sort is for all of us to join in an educational campaign. Then we cannot say that any man is exploiting himself. We are exploiting the truth, and the truth is that the well-trained person is the only one who should be allowed to take care of the sick people of a community. There must be something basically wrong with us and our relations towards each other and towards the people, or they would not wander away from us.

DR. ALBERT E. BERNSTEIN, Detroit: With reference to quacks, the question is, What do you call a quack? I take it that a man who practices a specialty of this kind, who puts himself out as a specialist without adequate training is quite

as much of a quack as the man who advertises boldly in the newspapers. A man who proclaims himself a specialist on the basis of a six weeks' course is to my mind not far removed from an ordinary quack.

I know it is utterly impossible for such a society as this, which is open to everybody, to make any limits, but it does seem to me proper and meet in these days of higher education and better education that we should try to set some limits as to what should be required before a man can be an eye, ear, nose and throat specialist. Certainly those of us who have given year after year and then do not claim to know it all—we must hold up our hands in astonishment when a man comes back after a six weeks' course and proclaims himself a full-fledged specialist. It seems to me some movement should be started to set the least possible time required to make a specialist. The American Academy sets a limit of one year, which is small enough.

DR. DON M. CAMPBELL, Detroit: It seems to me the question of the relationship to the public is rather too broad to be handled by a local organization or a state society. In a number of specialties the limit has been taken up by national societies and they have set certain standards which a man must reach before he is recognized and admitted to membership in the society. In other words, there has been established, as you know, a degree in Ophthalmology, and there is a movement on foot to establish another such degree in Oto-Laryngology. So it seems to me that while we might help the profession along, it is not our function to establish such a local situation in the state, inasmuch as it is being taken care of in a more comprehensive way by national societies.

Doctor Colver spoke of our contact with the public. It has always seemed to me that the trouble is with ourselves. The public is ready to accept anything that is presented in the proper way, but that is an individual matter—our relation to our patients must be of a more intimate character, and that is a thing every man must take care of for himself.

The post-graduate idea is also one which the American Academy took up at its last meeting in Philadelphia and gave a most successful post-graduate course. I was impressed with this—that, what the men wanted most was not altogether a clinical proposition. There are many problems in ophthalmology and oto-laryngology that can be presented to a body of willing listeners—problems that are not clinical in character, that do not demand a large number of clinical patients to demonstrate, so this idea of giving a clinical appendage to our meetings of this section need not be limited by the fact that this society does not always meet in the larger cities. It could be devoted to the discussion of problems that are technical in character, but do not need the setting of a large hospital. For instance, the question of bacteriology and ophthalmology, the question of the X-ray phase—ordinary, everyday problems that come to the practitioner of ophthalmology can be presented in such a way in the small cities as well as the larger. So it seems to me that this post-graduate idea could be worked out very easily and would add greatly to the interest of the meetings.

THE BLIND SPOT*

HARRY S. GRADLE, M. D.
CHICAGO, ILL.

The blind spot has been arousing quite a bit of interest recently, because of the increased

diagnostic value of this rather important physiologic function. It was first described by Mariotte in 1668 and excited enormous discussion at that time, but no value was attached to it from a diagnostic standpoint until the time of von Graefe. From 1880 to 1890 sporadic work was done, but accurate measurements were not carried out; in fact, no work of any importance until the introduction of the Bjerrum screen in 1902. Since that time blind spot measurements have been carried out more accurately than in the past.

Accurate measurement of the blind spot requires, first of all, a screen, not too close to the patient, because there is a certain amount of retinal drag. If the distance between the screen and the patient is too small the measurement is not accurate. On the other hand, if the distance is too great the importance of the semi-blind zone surrounding the blind spot is exaggerated so we do not receive a proper concept of the size of the spot. About 60 to 75 c. m. is the best distance for accurate measurement. The size of the object used depends upon the visual acuity of the patient as well as many other factors. I have found the magnet scotometer devised six or eight years ago to be a satisfactory method of measurement. This consists of a wire-wound iron ring, a solenoid, the face of which is covered with celluloid in order to form a screen, and which is marked off posteriorly in centimetre squares. There are two iron arms against the posterior surface of the celluloid which have double action joints so they can be moved any place over the screen. These hold steel balls against the anterior surface. One is used for fixation and the other furnishes a target by which the blind spot is measured. The patient's eye is 60 c. m. distant from the anterior surface of the screen. As soon as the target rolls out of the patient's view, instead of notifying by word of mouth he presses a button, flashing a minute light behind the screen. In that way we have a more accurate measure of the blind spot than by any other scotometer devised. The readings are taken down by an attendant and transferred to cross-section paper.

The blind spot should always be measured from without inward. It has been advocated to pass the target from the center of fixation outward through the blind spot but this has a tendency to displace the area in question. Again, the size of the blind spot will vary according to whether the target passes from seeing retina into the blind area, or from the blind area onto the seeing retina. The latter yields the larger measurement because of slowness of retinal response.

Following are the measurements of the blind spot based on a large series of cases measured

*Read at Annual Meeting, M. S. M. S., Flint, Mich., June, 1922.

with the scotometer, but these do not agree with the measurements given by previous authorities either from a comparative basis or by actual measurement. The blind spot will vary in each individual. Many things influence this and consequently a composite is necessary. The exact center lies $17^{\circ} 13'$ from the point of fixation. The internal border (nearest the point of fixation) is 13° , and the external border 18° . The horizontal diameter is $4^{\circ} 54'$. This corresponds with various measurements by different men, some giving it as low as $3\frac{1}{2}^{\circ}$. The vertical diameter of the blind spot is greater than the horizontal because the discs are more oval than round.

A perfectly normal blind spot may vary greatly from the composite measurements given above. In hyperopia, the blind spot is naturally a considerable bit smaller than the normal, exactly as in myopia, it is larger, varying with the degree of the myopia and with the degree of the peripapillary atrophy. The average lies somewhat below the median line, but an equally normal blind spot may bisect the median line or may even have the greatest bulk above it. The outlines of the blind spot are seldom regular any more than the average normal disc is perfectly regular in outline, especially when seen microscopically. Irregular branches may project representing the vessels as they leave the disc and pass over the seeing retina. The degree of these outshoots varies with the thickness of the vessels, the amount of blood they contain, whether they are accompanied by glia or connective tissue and with the sensitiveness of the underlying retina. Some cases are more marked than others. From the ophthalmoscopic appearance it is impossible to determine *a priori* which blind spots will show the vessel prolongations.

Let us determine what the blind spot is and what factors come into the formation of the blind spot and how these factors can be influenced. The optic nerve extends from the eyeball approximately 85 mm. back to the chiasm. The anterior 20 mm. is vascularized by the central artery and vein of the retina. The following 30 mm. constitute the avascular portion. The intracanalicular part is 15 mm. long and from the posterior end it is about 20 mm. more to the chiasm. The nerve is surrounded by the three meninges, except in the intracanalicular portion where the dura merges with the periosteum that lines the orbit, a point of supreme importance. Starting just behind the anterior vascular portion, small venules come from the meningeal sheaths and pass through the substance of the nerve, finally uniting to form the central vein of Kuhnt and Vossius which attains its maximum diameter in the posterior part of the intracanalicular

portion of the nerve and finally pours into the cavernous sinus. The drainage of the entire periosteum of the orbit is toward the rear and eventually a large share of it comes through the venules of the dura-periosteum through the substance of the nerve into the central vein.

There are two sections of the nerve that are of import, that can be measured accurately. One is the papillomacular bundle. This enters the optic nerve forming a triangle, occupying approximately one-third of the diameter of the nerve and extending from the periphery to a sharp point in the center. Back of the avascular portion of the nerve after the exit of the vessels has taken place, the papillomacular bundle recedes from the periphery and becomes smaller and rounder. In the intracanalicular portion the nerve is slightly flattened and the position of the papillomacular bundle is again shown as an irregular crescent lying around the central vein of Kuhnt. The fibres from the retina immediately around the disc according to Fuchs, follow the periphery of the nerve clear back and in a position like this the outermost parts would be occupied by the peri-papillary fibres. What does this mean? This is the portion of the nerve that is most easily involved. Suppose we have an inflammatory condition of the adjacent structures, the posterior accessory sinuses, so that the lymphatic spaces projected along the periosteum engorge the small venules that come into the central vein. We then could have a stasis with oedema. If the oedema is within the optic nerve canal surrounding the nerve itself and making pressure, the first fibres to be involved would be those on the extreme periphery of the nerve. These are the peripapillary fibres and there would result an enlargement of the blind spot. If the oedema were around the central vein of Kuhnt the first pressure would be exerted upon the most delicate fibres, the papillomacular bundle, and we would have a central scotoma. Then again, if we had oedema sufficient to cause pressure both at the periphery and center, we would have complete amaurosis. In the mild cases we have a peripheric oedema of the nerve; in more severe cases we have oedema around the central vein of Kuhnt manifested by a central scotoma; in the most severe cases we have an oedema causing pressure on the entire nerve. Although it is not definitely proven, the probability is that it is purely oedematous pressure.

In what conditions is the blind spot of value? There are several pathological conditions where we need accurate measurement of the blind spots for diagnosis. Back in 1902 Cantonnet said the blind spot might be of prognostic value in myopia. In all probability he is correct in severe forms. In a case with a myopia of ten

or twelve diopters we watched the symptom Cantonnet described, the advance of the internal border of the blind spot toward the point of fixation. In other words, the destruction of the retina towards the macula extending from the disc out. Although the figures are not sufficiently large to determine accurately, still I believe that in certain forms of malignant myopia we can make a prognosis based upon whether or not the internal border of the blind spot advances toward the point of fixation.

Of course in retrobulbar neuritis the blind spot is of great value. This has been known for quite a while, but was brought out forcibly in 1911 by van der Hoeve, who reported many cases in which the most noticeable manifestation was irregular enlargement of the blind spot. He further said that practically every case of ethmoid and sphenoid disease showed enlargement of the blind spot, and that retrobulbar neuritis with enlargement of the blind spot was sufficiently diagnostic to justify drainage of the posterior cavities of the nose. Although there may be no apparent disease showing in the nose, there may be a hyperplastic condition within the posterior cells manifesting itself by the enlargement of the blind spot due to pressure.

Formerly it was believed that the blind spot was enlarged in cases of medullated nerve fibres within the retina. This statement was first disputed by Landolt, who did not find the blind spot corresponding to the picture. In a series of eight cases of medullated fibres I found that in only one of the entire number was there anywhere near a correspondence of the size of the blind spot to the ophthalmoscopic picture of the medullated fibres. The medullated fibres as seen in the ophthalmoscope present a white appearance which would not seem to be penetrable; but if sufficient light penetrates through the periphery to these fibres, the blind spot does not correspond to the ophthalmoscopic picture.

In what conditions is the blind spot valuable? The enlargement of the blind spot in glaucoma has been considered pathognomonic. I do not believe it exists in every case, and I do not believe it appears sufficiently early to be of value unless measured very accurately. In retrobulbar neuritis we have had many cases in which the location and measurement of the blind spot was of great value. In malignant myopia a prognostic value may be attached to the blind spot measurements if carried out accurately.

DISCUSSION

DR. HAROLD WILSON, Detroit: Those of us who had the pleasure of hearing Colonel Elliott in Washington recently got the impression that a considerable value was attached to this enlargement of the blind spot as a means of diagnosis in the early stages of glaucoma. That would seem

to correspond with the anatomical and physiological factors upon which the existence of the blind spot depends, namely the discharge of periodic quantities of optic nerve fibres from within the optic nerve border, from the edge of the scleral ring, into the eye and straight out upon the retina. It would seem most natural and most in accord with the anatomy and physiology, that changes in the pressure, either interocular or pressure due to the mis-relation or degeneration of structures around the optic nerve, would lead to some changes in the fibres which pass from this point. We all know that that edge is fairly sharp and that these fibres are very delicate, and that pressure upon them, either from oedema in their neighborhood or interocular, would mean some alteration of their structure and also of their tonus.

There has been a question whether the precise changes which Colonel Elliott described are legitimate evidence, or whether they are obviously in error. I hardly think that question can be determined until instrumental matters are more standardized. The methods of examination which Doctor Gradle employs and those which are employed by Colonel Elliott would lead to certain changes in the shape of the blind spot as recorded upon the charts.

It seems to me that one of the fundamental difficulties which ophthalmologists and otologists make in their measurement of certain normal and abnormal functions of the organs with which they are concerned, is their lack of preparation for the work by the study of methods in a psycho-physical laboratory. The measurement of the visual function depends largely upon subjective answers from the patient, and we rather omit to study the fundamental changes upon which observations of that sort should be conducted. I am not meaning to say that all those who examine so delicate a matter as the function of the retina should be both physiologists and psychologists, but if they would take some training in the methods of a psycho-physical laboratory greater uniformity in results would be secured.

There are two methods of examining the blind spot—one of which proceeds along radial lines, using the blind spot as the center of measurement—that is, the lines extending from the blind spot upward and from the external portion of the field inward; and another method which enters the blind spot along circular lines of which the point of fixation may be the center. It is perfectly obvious that there is a difference in retinal lag, and consequently the size of the blind spot depends on whether the test object goes from without the blind spot into it, or from within out. In a method like the circular method in which the circular movements pass from without in and from within out, there will be some difference in size of the recorded blind spot, as well as shape. Personally, I think it makes no particular difference except in the matter of comparing charts, which method is used. The question is not so much to produce the boundary lines of the blind spot, as its general relations to its fellow. I do not suppose we will ever come to the point where we will use identical instruments for anything, but if we did I do not think this question that has been raised in regard to the difference in the periosteum of your spot depending upon the direction of your test object, will be of any importance whatever. The chief thing is a method which is reasonably accurate and reasonably rapid. It is necessary in the clinical practice of medicine to do things in a different way from experimental and research methods. It is absurd to insist upon a small error in a condition in which a large error is quite permissible. The same thing is true in regard to the recording of visual acuity and the ordinary perimetric examination. The thing is to decide first, what element of error is permissible in our examinations, and then having that understood make no limit in

accuracy beyond what is inherent in our methods and our instrumental apparatus.

My feeling in regard to the value of blind spot determination in general is this—that in a certain class of cases—in cases of suspected sphenoidal and ethmoidal infection, in cases of glaucoma perhaps more particularly than in any other class of cases, the examination of the blind spot will be of service; but I do not think that anyone who has spent even as much time as Doctor Gradle has on it would claim that it is any more than an additional method to assist us in clinical diagnosis.

DR. WALTER R. PARKER, Detroit: I wish first to express my appreciation to Doctor Gradle for his coming here to present this rather difficult subject.

In practically any tangential chart, whether for blind spot or paracentral scotoma, I think it is essential to state on the chart whether the target was moved in or moved out. We are now doing that as a routine matter. Whoever takes the field has to state this fact.

I am particularly interested in the explanation of the various forms of the lines of central vision through pressure in the canal. This of course has not yet been proven, and the question of a general toxemia is still playing an important part and the possibility of solvent action on the papillomacular bundle.

DR. HARRY S. GRADLE, (closing): The possibilities of the blind spot from both the experimental and theoretical standpoints are great. I agree absolutely with Doctor Wilson that it is merely an addition to our diagnostic armamentarium, and that alone it is not enough to make a diagnosis of anything. For example, Ergesheimer a few years ago claimed that every scotoma, no matter where located, and that every contraction of the visual field, was connected with the blind spot by a blind area. He made his measurements radially. I think he has modified his ideas considerably by this time.

The remarks of Doctor Walker are very pertinent. In any measurement on the tangential screen there are several important factors. You must know the exact distance of the screen from the patient, you must know the size of the target, you must know the direction in which the target is used, unless you always use it from the periphery to the center. But these measurements must be done day after day if your charts are of any value. Absolute measurement of the visual field or blind spot is not worth much; it is the comparative measurements every day and under identical conditions. You must have the identical apparatus, the same methods of measurement, and the same power of illumination. If you do this, your comparative measurements are of some value.

TUBERCULOSIS LARYNGITIS*

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Laryngeal tuberculosis may be classified within proper limitations as a curable disease. Its special study and care belong strictly to the laryngologist, although the modern trend of treatment removes the patient from the office to the sanatorium, the early recognition and treatment deserve special consideration.

It is estimated that one-seventh to one-ninth of our population succumb to tuberculosis and

that 10 per cent of the pulmonary cases show involvement of the larynx.

It is just as important and necessary that the laryngeal lesions be recognized early as those developing in the lungs.

It is true that after many years of scientific research, and stupendous work, volumes of literature, wonderful leaders in medical thought and organization, we are today without a specific for this disease, yet patient, conscientious endeavor will produce an improvement in results.

During these two decades medical opinion and organization, not facts, have launched such an anti-climatic howl and propaganda that thousands of cases have been deprived of these additional benefits to arrest and cure, proper climate for the proper laryngeal or pulmonary case affords. Opinions and general statements unsupported by facts are not only valueless, but very dangerous in medicine. The genuine test of therapeutics in tuberculosis is not what you and I may think or believe, but the test of time and results ten years after treatment. Is the patient alive or dead? Are tubercle bacilli remaining in the sputum? Has the lesion or the voice returned?

I believe that the therapeutic indications for climatic treatment of tuberculosis are as definite, important, and limited as in any other disease. There is no patient given more or worse advice, yet few are so hopeful. The tuberculosis societies, boards of health, and public press have been extravagant with instruction and information that the laity feel that this is a disease they know how to treat and every patient becomes the public property of the laity.

The laryngeal complications may develop slowly or suddenly take on mixed infection and break down with surprising rapidity. Six months to two years or more of patient treatment are often necessary to produce satisfactory results. Focal reactions to tuberculin may be observed in the larynx. No case of pulmonary disease can be considered as examined until the larynx has been observed in detail as neither pain nor hoarseness are necessarily attending early lesions. It is true that nearly all laryngeal invasion occurs in open cases or after ulceration in the lung has occurred. The contact with sputum is greatest in the posterior portion of the larynx where infection is most common.

The first symptom is usually partial or complete aphonia. This may be transient or repeated, but requires a careful examination of the larynx and chest. It may be sudden and disappear with clearing the throat. These cases with slight pulmonary lesion usually seek a laryngologist. This first sign may be associated with a simple laryngitis or be due to mechanical interference in the cords from infiltra-

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tion in the interarytenoid space or to simple cedema. Infiltration of the *cords* will produce a change in vocalization as well as a viscid tenaceous mucous or the voice may resonate in a breaking or weak quality. A feeling of a lump in the throat while usually a neurosis may note the onset of a lesion of the epiglottis. Dysphagia or reflex to the base of the tongue, to the ear or lateral walls of the pharynx accompanies ulceration. It becomes excruciating like hot coals of fire with each breath or attempt at swallowing when extensive ulceration follows. Sprays of cocaine 2 per cent before eating, afford relief at this time.

The differential diagnosis must consider the pathology of this condition under four divisions with attending symptoms. Anemia, hyperemia, infiltration and ulceration.

Anemia of the mucous membrane includes an early change in the earliest stage of infection. An intense pallor may appear in the cords, ventricular bands, epiglottis or neighboring structures as well as those over the entire laryngeal image. A few dilated capillaries may be seen over one or both cords. According to Coakley engorged blood vessels with an extremely pale mucous membrane in the region of the vocal process and in the presence of a pulmonary lesion is pathognomonic of an early lesion. As many pulmonary cases exhibit an intense general pallor of secondary anaemia in other mucous membranes it would seem to me that the significance of this sign was overstated.

Some rapid cases show hyperaemia as the earliest observation which are quite resistant to treatment and go on to quick infiltration and ulceration.

The early condition of round cell infiltration with the formation of giant cells is the ordinary pathologic change. The membrane may be corrugated about the posterior commissure and between the arytenoids. It may appear as a tumor, even obstructive and producing dysphonia. The early appearance of infiltration on one or both cords is usual, later with oedema and a pale translucent appearance. This is contrary to the hyperaemic picture of syphilis or acute inflammation. This process may extend to the ventricular bands, the aryepiglottic folds and the epiglottis. Ulceration appears sooner or later in all progress casts, first as one or more superficial ulcers, coalescing and giving a house nibble appearance. The scrapings may show tubercle bacilli. Increase in ulceration may lead to rapid destruction of a cord, perichondritis and ankylosis. Necrosis and abscess of the neck may occur before a fatal termination.

The four diseases accompanied by infiltration and ulceration are tuberculosis, syphilis,

carcinoma and lupus. In addition differentiation must be made from pachydermia, chronic laryngitis, papilloma and other beginning tumors and rhinoscleroma.

The prognosis is directly in proportion to the pulmonary involvement and the resistance thereto. Slight infiltration or ulceration offers a good prognosis. Cases with pain and complete aphonia are proportionately depressed or the nutrition suffers and the prognosis becomes grave.

The diagnosis may be difficult where the pulmonary lesion is slight and only initial changes have begun. Hoarseness is a common symptom but may occur as a simple laryngitis. Relaxed cords or slight difficulty in movements may appear with early irritation of the laryngeal nerves. Huskiness may be due to excessive secretion only. Pain radiating to the ear may appear early. Painful deglutition occurs in the ulcerative process, especially of the epiglottis or ventricle. Cough is often distressing and characteristic of a laryngeal lesion. Obstruction to respiration occasionally requires tracheotomy.

The mistake is often made of diagnosing all affections of the larynx in the presence of pulmonary tuberculosis as tuberculosis.

According to Pottenger a diagnostic aid may be found in tuberculin 1-5 mg. Observations of the larynx and temperature should be conducted for two days previously and for 36 hours subsequent to injection.

Treatment may be classified as prophylactic, hygienic, climatic, specific, symptomatic, local, surgical and general. There is a popular belief among the laity that so-called catarrhal affections of the nose, throat and larynx lead to tuberculosis. It is exceedingly difficult to prove the scientific truth or falsity of this assertion.

The prophylactic treatment of this affection is grouped around our conception of that which will best promote immunity. This involves the problem of the fight against infection and the predisposing factors of heredity.

Prophylactic treatment is particularly the field of the family physician, who becomes necessarily a student of a predisposed individual. If the treatment by fresh air, sunlight, forced feeding, and carefully directed exercise has any curative value during the progress of the disease it must in all certainty have untold value along prophylactic lines.

Children who bear the earmarks of tubercular heredity, who are exposed at home to infection, and who show well defined signs of latent danger, should receive the timely advice of the family physician as to occupation, habits of life, diet and general hygiene. It is recognized that the difficulties of good results are ex-

tremely numerous among a class of individuals who take unkindly to discipline; but the problems of prevention cannot be solved without early diagnosis by the medical profession and painstaking care of the subjects under exposure.

The hygienic treatment requires proper clothing, sufficient, but not too frequent bathing, digestible and nourishing food, out-of-door life with properly ventilated or open-air sleeping apartments. Coal gas, air laden with organic matter, as found in our cheap theaters and public halls, the use of tobacco, ice, and alcoholic drinks are irritating to these lesions. The use of the voice in laryngeal phthisis should be prohibited or moderated. The rule of rest or exercise is as important in laryngeal involvement as in the pulmonary varieties.

The influence of climate is well recognized by the profession and laity. In laryngeal infections that complicate a far advanced pulmonary involvement advice to remain at home is much more valuable than a recommendation to seek some indefinite place in the western country. Far advanced tuberculosis should be fought at home, and no patient should be allowed to seek new environment without sufficient financial resources. Usually a warm, moist climate improves the inflammatory and catarrhal condition of the larynx, but as the pulmonary lesions do better in a dry, warm climate with altitude it is advisable to study the condition, and, when possible, recommend sanatorium treatment in New Mexico, Arizona, or selected parts of Southern California. It is essential that medical supervision should be obtained for each patient, and the family physician or specialist who firmly believes that climatic treatment offers for his special patient something of genuine benefit should direct him with great care to some competent practitioner or chief of a sanatorium in the region especially indicated. When the local lesion is in the early stage, these patients do well at a considerable altitude (6,000 feet).

Many cases under careful supervision improve satisfactorily in the lower altitudes—below three thousand feet. Discomfort and distress are increased during the wind and dust storms of some of our favorite southwestern resorts.

Some remarkable arrests and cures have been obtained among laryngeal and pulmonary patients sent to an altitude such as Silver City, New Mexico, about six thousand feet. In this region the altitude is played against the latitude, resulting in cool or cold nights with warm or hot days.

Patients with tuberculosis of the upper air tract without much pulmonary involvement will improve and obtain great comfort from an

ocean voyage to the Riviera or Egypt.

The numerous specifics that have been brought forward from time to time for the cure of the various forms of tuberculosis have failed to establish the claims made for them. Skepticism and therapeutic nihilism are unjustifiable, however, as usefulness may be found for many of the remedies, in selected cases. Unfavorable results in therapeutic procedure in tuberculosis of the upper tract are largely due to the fact that many of these manifestations, and the laryngeal form in particular, are almost invariably attended by pulmonary infection of more or less virulence. In a large experience during twenty years the writer has not seen a case of primary laryngeal tuberculosis in clinic or private practice.

Among the modern so-called specifics may be mentioned tuberculin in various forms, with or without vaccines, sera and anti-toxins, iodine, chloride of gold and sodium, creosote, formalin, oil of cloves and nuclein. In addition may be mentioned the X-Ray and radium.

While brilliant results have been obtained when these sera or drugs were used the test of time has proved their failure. It is very important to differentiate between tubercular, chronic and syphilitic laryngitis, before a definite plan of treatment is adopted.

Tuberculin, the double-edged sword, stands out pre-eminently as one of the useful remedies discovered up to the present time. The selection of the dose, a study of the individual, a most watchful care of the patient, and careful attention to the rules of administration are essential to successful treatment. Pottenger claims that we have manifest evidence of its value in tuberculous laryngitis, where in small infiltration and even ulceration great improvement and cure may be looked for in a large percentage of cases. Trudeau advances important rules for consideration. He advises a minute dose of 1/10,000 or 1/20,000 of a milligram of the solid substance of Koch's bacillen emulsion or 1/1,000 of a milligram of old tuberculin, increased very gradually, and at intervals that will produce as little disturbance as possible. At the slightest evidence of intolerance such as irritation at the site of injection or slight temperature reaction, the interval should be lengthened and the dose diminished. No injection should be given for some days following a reaction. It is necessary to have the patient under observation for at least six months if this treatment is commenced.

In the writer's experience many cases have been favorably influenced by the use of Deny's filtrate (B. F.) beginning with 1/50,000 or 1/100,000 of a milligram and increasing with extreme care at weekly or bi-weekly intervals to avoid every possibility of a reaction. Failure

comes from "beginning treatment with too large amounts; raising the dose too rapidly or at too short intervals; repeating the dose before all effects of a reaction have passed; increasing a dose after a reaction; neglecting malaise, headache, anorexia increased temperature, cough and expectoration as indication of a limit of tolerance." When a reaction occurs or when anemia is associated with the tuberculous lesions valuable assistance during the interval may be obtained by the hypodermic use of the green citrate of iron (gm. 0.05) and sodium arsenate (gm. 0.001). This method of medication saves a delicate digestive apparatus for other usefulness, and affords a stimulating and reconstructive treatment of great and quite unrecognized value.

In cases mixed with syphilitic infection mercury and iodine will furnish the best results. The biniodide of mercury (gr. 1), potassium iodide ($\frac{1}{2}$ oz.), cinnamon water, and distilled water (2 ozs.) each in teaspoonful doses three times a day, will promote a startling effect in properly selected cases. Its administration in lesions of strictly tuberculous type is often detrimental and contraindicated. The use of phosphorous (gr. 1/100) in ten to fifteen minims of olive oil in capsule is beneficial in the more chronic cases. It should be given after a full meal and promptly discontinued if irritation of the stomach, urticarious eruption, or aphrodisiac effects follow its use. Symptomatic remedies are necessary to allay cough, temperature, pain, diarrhea and mental distress from time to time. Heroin (gr. 1/12) or codein (gr. 1/8-1/6) are efficient drugs to relieve the irritation of the larynx. They should be administered with caution and not until decidedly indicated. Aspirin, guaiacol, and quinine will control temperature when necessary. If alcohol is demanded the malt beverages and preparations other than spirituous are preferable. Rectified spirits in milk is better than whiskey, brandy or rum. While in diarrhea and pain opium or morphin may be necessary, although their use should be postponed as long as possible. Sleep may be secured by veronal or trional if absolutely indicated.

The prescribing of depressing drugs should be withheld from patients that offer a hope of cure, as the resistance may be undermined by the prostration, interference with elimination and normal digestion that attend their constant use.

The local treatment consists of the inhalation of gases or medicated air in sprays or powders and the application of drugs to the affected region. Among the many ingenious methods of local therapy that have been advocated from time to time, a few useful palliatives may be

mentioned. Reference may be made to some special text book if the complete list is desired.

Before treatment is administered, a spray of Dobell's solution may be used to remove secretions from the larynx. The application of formalin 3% in glycerine in gradually increasing strength is pre-eminently the most beneficial remedy. It should be prepared daily from a 40% solution. Until the tolerance of the larynx is obtained the pigment may be used in $\frac{1}{2}$ % strength, increasing to 1 and gradually to 10%. Two per cent cocaine may be used if much pain is encountered. The preparation of Lake combines formalin (7%) lactic acid (50%), glycerin (20%), water (to 100%). The application of lactic acid (20%) is a favorite with many laryngologists. Iodoform insufflation is recommended highly by the older laryngologists. Orthoform and anesthesin are used for the relief of pain.

Freudenthal highly recommends fulguration for the cure of ulcerated areas. Argyrol 20% is an acceptable substitute when irritation follows the use of formalin, lactic, nitric, or hydrochloric acid. Intra-laryngeal injections of guaiacol 2 $\frac{1}{8}$ % menthol and camphor (aa gr. 2) in olive oil are often beneficial in the relief of pain and cough. Deep injections of alcohol into the region of the nerves may be used to allay pain. The use of the X-Ray is followed by dangerous reactions.

When these measures are not sufficient to modify or allay the ravages of the disease, surgical intervention may be required. The lesions affecting the epiglottis may be removed by epiglottectomy as practiced by Lochard of Denver.

Curettage has been employed to remove the tubercular deposits. It is possible, however, to remove only a small portion of pathologic tissue by this method. It is advisable only in selected cases where other methods have failed.

When deglutition becomes very painful a spray of cocaine 10% before meals is justifiable. The Wolfenden position may be assumed with additional comfort in swallowing. The head is hung over the bed and the liquid drawn through a tube from the glass upon the floor. In this manner the patient drinks like a horse.

Laryngectomy, thyrotomy, or tracheotomy are rarely indicated in this disease. In the late ulcerative stage it may be necessary to administer an occasional small dose of morphine hypodermically. Constitutional treatment may be of advantage in the earlier stages, in the form of cod liver oil, malt, hypophosphites, or creosote.

The treatment of this disease may be carried on most satisfactorily in a sanatorium where daily supervision and care are possible.

At the Detroit Tuberculosis Sanatorium during a period of ten years, laryngeal invasion appeared in from 8 to 15% of all cases. The general treatment of the patient and his pulmonary lesion is of such importance that success is dependent on the most elaborate provision for rest, diet, fresh air, nursing and medical care. Climatic treatment in addition affords 20% more arrests. Bullock of Silver City, New Mexico, reports an increasing number of arrested pulmonary and laryngeal cases over a period of twenty years. Topical applications and sprays were given during the first five years. The galvano Cautery during the second; rest and formalin during the third and sunlight and rest during the last five years with 50% improved and recovered. These results in a number of cases that I personally observed lead me to believe that they are the best to be obtained at the present time.

CONCLUSIONS

During a period of 25 years I have labored patiently to improve results in this most discouraging class of cases and am convinced of certain definite facts.

First—That much harm may be done by over treating the tuberculous larynx with irritating and frequently used sprays and applications.

Second—That the general care of the patient and a carefully detailed program in a sanatorium are essential and more important than in the purely pulmonary form.

Third—That if financial conditions will not allow climatic advantages a compromise must be made that will include bed rest, voice rest, proper diet and applications of 3% formalin in glycerine at regular intervals, with light therapy.

Fourth—That rest and the direct sun treatment or modified light therapy will afford the best results.

Fifth—That orthoform emulsion or insufflation with 85% alcohol injection into the superior laryngeal nerve offer the best relief for pain.

Sixth—That X-Ray therapy is disastrous and will often do great harm.

Seventh—The removal of the ulcerated epiglottis is attended by great improvement and relief of pain.

Eighth—That the method of Forster providing for the daily sun or light treatment to the larynx by the patient is a decided advance in therapy.

Ninth—As laryngeal tuberculosis is present in 10% or more of all adults suffering from pulmonary lesions, climatic and sanatorium treatment should be afforded to all cases that possess the financial possibility.

DISCUSSION

DR. GUY. McFALL, Detroit: I agree with Doctor Shurley in some things, and one is that I do not believe you ever see a case that is primarily laryngeal tuberculosis. I think if you search a little farther you will find the lesion in the lung or some other part of the body. It was formerly believed, and is still believed in England, that infection of the larynx is caused by sputum passing over the laryngeal surface. This is not true, but it is due to the toxic products being swept through the blood vessels and lymphatics. We then have a mining process in the submucous tissue which if it goes on will break through underneath outward.

The early case, if taken care of, as a rule makes a good recovery. We therefore should be careful in examining the larynx of all tuberculous patients, as Doctor Shurley says. If we wait to get the aphonia and hoarseness or something of that sort, the chances are it will be too late to secure a good recovery—provided, of course, that the case is not one which rapidly progresses. The rapidly progressing lung makes a bad prognosis for the larynx, although we do see many cases of laryngitis that have been treated and healed and yet the lung go on and be destroyed, while the larynx remained in good condition. If a laryngeal case suddenly develops a pain that goes up into the ears, it is bad. That means that you will have a rapid breaking down of the tissues, and I have seen cases where it swept up the pharynx, across the soft palate and utterly destroyed it. The soft palate becomes board-like and the patient regurgitates food, collapses and rapidly dies of starvation. The epiglottis does not cause much difficulty until you have involvement of the hinge. You may find the epiglottis rounded off, thickened and undermined and the patient will not complain until there is pain; pain is the last symptom and it simply means that the hinge has become involved. When the patient tries to swallow the hinge cannot move and there is very severe pain. Cocaine will do no good because the involvement is deep—cocaine only reaches the mucous surface. There is only one thing to do and that is to quiet it with alcohol injections.

I think the majority of men who see cases of laryngeal tuberculosis in general practice are inclined to believe that it means ulceration of the cords. Tuberculosis of the larynx does not begin as ulceration of the cord. If the ulceration extends to the attachments of the cord then you may have a detachment of the vocal cord itself; that is not uncommon. You have the vocal cord flapping around inside of the larynx and it causes a little hacking cough and is very distressing. If you are fortunate enough to have a healing of the ulceration and diminishing of the induration, there are two things that may happen. One is mechanical interference, not allowing traumatism of the cord; and there is a rounding of the edges of the vocal cord, after which the voice will remain hoarse. The sharp edges of the vocal cord will not go back into condition, and the voice

will remain hoarse. The local condition of the vocal cord may be cured, and yet after five years the voice will be husky. But we must not wait until we have the hoarse voice, or until we have symptoms of pain in the throat.

The subject of treatment has been quite a battle. In 1908, when we opened the Hermitage sanitarium we began to use formalin. The results were rather surprising, because in years past everything had been lactic acid, galvanic cautery, etc., without results. We found that with the use of three per cent formalin the ulceration rapidly cleared up. Then we kept on. We increased our percentages when we sprayed to clean the throat, because the throat in the advanced stage is filled with mucus. We ran a series of cases; we sprayed one series and did not spray the other, and to our surprise the unsprayed cases did just as well as the sprayed cases, and since that time we do not spray these tuberculous throats before treatment. A swab is made—not too large. When you touch the sore spot the larynx closes down on the swab and the anterior part of the larynx is then covered with the medicine. There is contraction of the larynx and the swab extends within the opening of the larynx and then is pulled out. We had a few cases in which we removed the epiglottis, and I wish to state that I shall never do it again. I have never seen a patient with laryngeal tuberculosis strangle; I have never introduced a tracheotomy tube to save a patient's life. They die from toxemia and not from strangulation due to closure of the larynx. Amputation of the epiglottis may afford some relief at the time, but if the hinge is involved it will not afford much relief. You still have the stump of the epiglottis and you will have the pain just the same as if the whole epiglottis remained.

The treatment of laryngeal tuberculosis can be done at home by intelligent people, but it is far better to have them in a sanitarium where they can have daily treatment. It does no good to treat the larynx occasionally, say three times a week; it must have daily treatment. Our method is once a day, in the morning, because that is the time when the patient is rested. If it is a bad case it is treated at the bedside; if it is an ambulatory case it is treated in the throat room. It takes but a few minutes for each case. But it does no good to just stick a swab down a patient's throat; it must get into the larynx. We all know that it is no easy thing to get into some larynxes. In some cases the epiglottis has a very narrow chamber and you have to cover it with your probe. Then we have the kind of patient that will fight, no matter how long you treat them. Then the tongue being held during the treatment brings the larynx up. In the sunlight treatment the individual must hold the tongue if we get the full benefit of the light and the full effect of the mirror, and it is only with intelligent people that we get the best results. If the larynx is down and you give the treatment to some man who does not understand the whole procedure, it is very easy to deflect the mirror

and throw a shadow over the larynx and the sunlight is gone. So really when you are treating the mass of the people it is not a procedure that you can use with great benefit. But we must use in sanatoria a method which the people will understand, which gives them relief, and will give us results. We have not increased our dosage of formalin. We use the aqueous solution, made fresh every morning. The X-ray has proved disastrous; so has radium.

When it comes to the climatic conditions, it is usually a question of money. We may be able to diagnose our cases correctly and select those that should go to one climate or another, but it is a matter of funds, it is a matter of breaking up the household. In many tuberculosis cases the patient is a mother with three or four children. There may be money enough to send her away, but there is still the mental attitude, and when you separate the mother from the family it is bad. They do well by these changes, there is no question about it. In Detroit and everywhere, there are cases that have come back after a change of climate, rested and subsequently cured, but there is a mental anguish that is an important factor, and if we could get away from that, we would get better results. The effort being put forth now by various societies and boards of health to induce people to remain at home and receive treatment in sanatoria, is doing a lot of good work and people are receiving it well. We cannot judge of these things in a few years. Five years does not mean anything in the treatment of laryngeal tuberculosis. It is a matter of twenty years to get results.

DR. BURT R. SHURLEY (closing): I simply want to emphasize the point that the early recognition of the laryngeal lesion is of as much importance as the early recognition of the pulmonary lesion, and every pulmonary case should have periodic examinations of the larynx to detect the very early signs.

The climatic problem of course is of importance, but 24 per cent of the cases that are sent away are found to be very badly selected. Of course these are mistakes of the profession. The question of the temperament of the patient is a very important thing to consider before you send them away.

I have operated a number of cases for removal of the epiglottis, and I cannot agree with Doctor McFall in this. I believe that it has a very distinctly palliative value and that it does increase the opportunity of the patient for improvement. I have two cases done a year ago, and while they are not cured, each having a marked pulmonary lesion, yet I believe removal of the epiglottis has a distinct place and that selected cases should be given this opportunity for improvement.

The Journal is Your Forum—
We invite you to utilize it for
the expression of your views on
Medical Subjects.

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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J. McLurg.....Bay City
R. S. Buckland.....Baraga

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OCTOBER, 1922

Editorials

DEATH OF DOCTOR A. R. CRAIG

In common with the host of members of the American Medical Association we were more than shocked upon receiving the information that Dr. Alexander R. Craig, Secretary of the American Medical Association, died on September 2nd.

For more than ten years we have been in close relationship to him by reason of our office and our activities in the national House of Delegates. In this capacity we learned to hold him in high esteem and regard him with sincere respect. As secretary of our national association, he endeared himself to all those who came in contact with him. In his death the association has lost an officer whose replacement will be most difficult to accomplish.

COMMITTEE WORK

Our friend Bulson, editor of the *Journal of the Indiana State Medical Society*, makes the following comment:

"We are in favor of abolishing all committees except those that show some signs of life. It is the height of absurdity to appoint three to five doctors on a committee and at the eleventh hour have a committee report based on no

actual work of the committee, prepared hurriedly by the chairman, and presented at the annual session."

To all of which we say Amen. On several occasions we have stated that committee appointment is no idle honor. It means work. If you are unwilling to work, then resign. If we cannot have working committees, then let us abolish our committees.

Editorial Comments

This issue went to press before the minutes of the Ann Arbor Conference were available. A full report will be forth coming in the November issue.

With the resumption of society meetings County Secretaries are again urged to send in a report of their meetings. We will also appreciate news items from your county. Please see that they reach us by the fifteenth of each month.

The Joint Committee on Public Health Education will hold a meeting during the forepart of October. A new bulletin will be issued and arrangements will be made for the filling of lecture engagements during the fall and winter. If you have not sent in the subject of your address, please do so at once. This is the last notice.

Just so much space is available for original articles. The papers that were read at our annual meeting will be published as rapidly as possible. It has ever been our policy to select an equal number of papers from each section for each issue. This rule is violated only when symposiums are concerned in the transaction of a section. We make this announcement in order that authors will not become concerned over the non-appearance of their paper and commence to think that it has been mislaid. Proof is always sent before publication.

Frequently we receive requests for the mailing list of our state society or for a given district of the state. We regret that we cannot send out these lists. Our mailing list is on an addressograph and to run it off requires the time of one person for five hours and 3,000 separate slips of paper. Members desiring the addresses of physicians in Michigan are advised to consult the Directory of the American Medical Association. This directory is revised each year and contains the names of members printed in capitals, arranged by states, counties and location. Much more valuable information regarding the laws of each state, state institutions, hospitals, officials and boards is also imparted. Such a directory will furnish you with a splendid mailing list. If your local library does not have this directory you can secure it from the Directory Department, American Medical Association, 535 N. Dearborn St., Chicago.

With so many movements afoot that affect the doctor and which are concerned with public health measures, community free clinics, school clinics, hospital administration and legislation would it not be advisable to hold district conferences for the discussion of these subjects and measures? At such councillor district meetings the discussion should be limited to the attitude and interest of the profession to such propositions. Then some concerted action would ensue. The trouble seems to be that so many are concerned solely with their personal interests and take no time or give no effort to the solution of the problems of the entire membership. This work is left to but a few and they cannot work effectively without the support of the majority. The individual is as vitally concerned as is the entire profession. We feel that these suggested conferences will exercise a powerful influence in arousing the individual. They will also serve to acquaint the individual with facts that should be supplied for his good. Why not urge such a conference in your district?

Medical defense is a feature of our membership of which we are justly proud. We have an efficient and capable Medico-Legal committee. Under the chairmanship of Dr. F. B. Tibbals, this committee has made a splendid record, it has fully protected our members and conserved their interests. Due to Dr. Tibbals' activity this benefit of membership is extremely valuable. To continue to render this service the Medico-Legal committee merits your co-operation. To be successful to the fullest degree it needs your support. It can best attain desired ends when you comply with the rules and instructions of the committee. To that end we urge that when you are threatened with a suit, or, are sued you observe the following procedure: Notify immediately, the representative of your local society and also Dr. Tibbals. Engage no attorneys until advised by Dr. Tibbals. Do not discuss the case with anyone. Send all court papers and full facts of the case to Dr. Tibbals direct. Having done this follow implicitly the instructions sent to you. Prompt notification of all threats or suits is imperative.

Our profession is a living, growing, changing occupation that never can be wholly learned. No man can know everything and continue to learn. A man who can no longer learn is dead. Some doctors are dead the first year they are in practice, others die from the fifth, tenth, fifteenth or twentieth year of practice. The force of human inertia, however, is such that they walk around unburied, the coffin is unordered and in the meanwhile they attempt to render service as a doctor. They regard their work only in the light of a living.

If you cannot learn anything you are virtually dead; on the other hand if you want to get out of the dead class, if you are not too lazy, the opportunity and medium presents itself in your county medical society, your hospital clinics, and your state and national meetings. Added to these are the reading of recognized medical journals that are other than trade journals for some drug house. This winter the opportunity affords itself. Get busy; next spring you may be dead, and not know it.

No phase of medicine seems to have been so thoroughly investigated and thrashed out as often as ulcer of the stomach. With clock-like regularity the old question of treatment bobs up for discussion every once in a while. A decade ago internists and surgeons were vehement in their denunciation of

each other's tampering methods of treatment. Each derided the other not only for failure to cure, but also for failure to recognize the border lines of usefulness of the opposing type of therapy. Symposia contemplated to clarify the situation have more frequently resulted in a more obstinate retention of their view of the therapy of ulcer than in a compromise by the participants. The latest attempt at such classification has also apparently proved futile as warrant the discussions that follow; except in so far as some few general principles are accepted by both sides.

First, all recognize that there are some cases which have improved best on medical treatment and, vice versa, some on surgical. Second, there are cases which have persistently resisted medical care, but have been cured by surgery, and a great many surgically treated cases have returned to the medicine man for further treatment and an occasional cure after operation. Third, there are some cases which cannot be cured either by medicine or surgery alone. It therefore becomes evident that while there are two extreme types of ulcer one purely surgical and one medical, a large intervening group exists wherein medicine and surgery overlap each other, and this group forms the basis for dispute.

In view of this fact it would seem obvious that the rational attitude to assume is as follows: When a case of ulcer presents itself it should be treated medically until cured unless certain positive indications for surgery exist, such as impending perforations, frequent hemorrhages, gastric obstruction, etc., and the medical treatment should continue until the case is cured or improved or develops into surgical condition by the appearance of one of the above phenomena. If, however, none of the above phenomena appear and the case fails to improve, then it should be considered as one of those border-line cases lying between surgery and medicine whose best treatment seems to be surgery for the removal of the cause of the immediate distress followed by medical care and observation for the elimination of the factors leading to recurrence.

With this new understanding of the treatment of ulcer, a more rational attempt at cure, a great many more cases should be benefited than formerly.

Deaths

Doctor Frank Wilson Martin of Lansing was born in 1859 and died July 17, 1922. He graduated from the Medical Department of the University of Michigan in 1886.

Doctor R. E. Stocker of Brimley was born in 1882 and died July 23, 1922. He graduated from the Detroit Medical College in 1869.

Dr. Edna M. Trewin of Buchanan was born in 1868 and died July 28, 1922. She graduated from the Medical Department of the University of Michigan in 1912.

Doctor John C. Salmen of Pinconning was born in 1846 and died in Bay City, July 1922 from cerebral paralysis. He graduated from the Medical Department of the University of Michigan in 1878.

The death of the following doctors, not members of the Society, have been reported: Dr. H. W. Booth of Orion, Dr. John Leeson of Cadillac, Dr. B. R. Johnson, Cadillac.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. **H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.**

Dr. and Mrs. T. A. McGraw of Detroit spent the summer in Europe.

Dr. E. M. Houghton left Detroit, Sept. 6, 1922 for a trip to London, England.

Dr. and Mrs. Walter P. Manton of Detroit have gone to California to spend the winter.

Dr. and Mrs. John Harvey left Detroit September 8, 1922 for a two months' trip to Europe.

Dr. and Mrs. E. S. Sherrill of Detroit spent the summer in their cottage at Algenac, Mich.

Dr. and Mrs. A. E. Gehrke of Detroit announce the birth of a son, Robert B., August 22, 1922.

Doctors E. W. Haass and Max Ballin who spent the summer in Europe, have returned to Detroit.

Dr. and Mrs. Earl W. May of Detroit announce the birth of a daughter, Carol Helen, August 18, 1922.

Dr. Wadsworth Warren has removed his offices to suite 1405 Stroh Bldg., 28 Adams Ave., West, Detroit.

Dr. and Mrs. B. H. Larssen of Detroit announce the birth of a daughter, Selveig Margaret, August 23, 1922.

Dr. and Mrs. A. M. Humber returned Sept. 4, to their home in Highland Park after a two-months' trip abroad.

Dr. Walter P. Manton has presented the Wayne County Medical Society with a collection of lantern slides on cancer.

Dr. and Mrs. Arthur B. McGraw of Detroit announce the birth of a daughter, Sarah Edna, August 21, 1922.

Dr. and Mrs. E. T. Milligan left Detroit September 5, 1922 for Santa Monica, California. This will be their future home.

Dr. R. E. Loucks of Detroit was elected president of the American Radium Society at its annual meeting held in St. Louis.

The office of the Michigan State Board of Registration in Medicine was moved September 1, 1922 to 601 Stroh Bldg., Detroit.

Dr. Preston M. Hickey of Detroit recently moved

to Ann Arbor to take up his duties as Professor of Roentgenology in the University.

Dr. Robert T. Tapert of Detroit, sailed September 1, 1922 for Europe. While there the doctor expects to visit the hospitals of Vienna and Berlin, returning about October 16.

Major Ray W. Hughes Captain T. G. Amos and Captain C. W. Sellers, members of the Michigan National Guard attended the recent fifteen-day encampment at Grayling, Mich.

Dr. Robert L. Harkness of Houghton was chosen Commander of the Department of Michigan, American Legion, September 6, 1922 at the 4th annual convention, held in Ann Arbor.

Dr. Sherman Gregg, formerly first assistant at the Kalamazoo State Hospital, has resigned and entered general practice with offices in the Kalamazoo Bank Bldg., Kalamazoo.

Dr. J. Van Becelaere of Detroit appeared before the California Board of State Medical Examiners and successfully passed an examination entitling him to practice medicine in that state.

In the 1922-1923 Detroit tax levy (\$43,098,245.85) the amount charged to the Detroit Department of Health is \$1,619,282.00. In other words 3.8 per cent of the total tax levy goes for the support of the Health Department.

The Genesee County Medical Society met Wednesday, Sept. 6, President Miner in the chair. Dr. Guy L. Bliss of Kalamazoo gave a most interesting and common sense paper on "The Diagnosis and Treatment of Tuberculosis in Childhood."

At its meeting, held May 4, 1922, the Pennsylvania Bureau of Medical Education and Licensure voted not to accept by reciprocity any physicians licensed in Illinois during 1921, because of irregularities reported in granting of licenses during that year.

Dr. Carson D. Merritt and Miss Ida Mae George, both of Flint were united in marriage at the parsonage of the Court street M. E. church by Rev. C. E. Stedman, pastor. They were attended by Dr. and Mrs. Guy D. Briggs. Dr. and Mrs. Merritt will make their home in Flint.

Dr. William A. Evans, Professional Bldg., 10 Peterboro St., Detroit, Mich., left Wednesday for Los Angeles, to attend the annual meeting of the American Roentgen Ray Society. Dr. Evans will read a paper entitled "The Value of the Roentgen Study of Mastoid Disease in Children Under Five."

The Lapeer County Medical Society tendered a dinner to Dr. S. A. Snow of North Branch, September 12. Dr. Snow has practiced at North Branch for 45 years. The dinner was a testimonial to the doctor for the continued interest he has demonstrated in matters pertaining to medicine, public welfare and community spirit. Twenty-three out-of-town guests were present.

"Doctor" Harold "Crown Breeze" Jackson of Detroit, sentenced to serve six months and to pay \$200 fine for violating the medical law, went to the work house December 23, 1918. He stayed until January 17, 1919, when he furnished \$2,000 bail for his re-

lease and filed an appeal. When the appeal came up for hearing, "Doctor" Jackson had skipped. He was caught a few weeks ago in Denver, September 5, 1922, he was ordered back to the House of Correction to complete his term, on an order issued on motion of Prosecutor Voerheis. His bail, of course, has been forfeited.

It is reported that Governor Small of Illinois has dismissed W. H. H. Miller, director of the State Department of Registration and Education, who was indicted by the grand jury at Chicago on a charge of selling numerous physicians' licenses and druggists' certificates. A. M. Shelton of Crystal Lake has been appointed to succeed him. Miller's dismissal followed his refusal to resign after a medical board had recommended his removal some months ago and hundreds of letters from all parts of the state had been sent to Governor Small attacking Miller's administration.

The Reciprocity Committee of the California Board of Medical Examiners have made the following report: "It has been brought to the attention of this Board that questionable procedure in examinations has resulted in the reported indictment of certain officials of the Department of Registration of the State of Illinois and your committee recommends that reciprocity applicants based upon Illinois credentials for the year of 1921 be refused recognition in California. It is further suggested that until the board is satisfied that no further irregularities exist in Illinois, reciprocity recognition be withheld and that a copy of this report be sent to the Illinois Board."

County Society News

GENESEE COUNTY

At the July meeting of the Hurley Hospital staff, Dr. Leon Bogart spoke on "Fractures of the Skull." At the August meeting Dr. Carl Chapel addressed the staff on "The X-ray Treatment of Toxic Goiters."

Dr. Ernest Cook, formerly of Grand Blanc has arrived safely in Alaska. He will be in charge of a hospital there.

The annual picnic of the Genesee County Medical Society was held at the Boy Scout Camp, Pine Lake, on Wednesday, August 16, and was largely attended. Nurses from the City Health Center and from Hurley Hospital were guests. The afternoon was spent in athletic contests, the principal feature being a baseball game between teams captained by Drs. Charles O'Neil and Carl Moll. Record syringes valued at \$25 were donated by William Riddell of the J. F. Hartz Co., as prizes. After dinner addresses were given by Dr. George Pratt of Boston, formerly of Flint and now medical director of the Massachusetts Society for Mental Hygiene, Dr. Harley Haines of Lapeer, Dr. F. J. O'Brien of the National Association for Mental Hygiene, Dr. W. J. Kay of Lapeer and Rev. J. B. Pengelly of Flint. A good orchestra furnished music and the evening was devoted to dancing.

W. H. MARSHALL, Secretary.

NORTHWESTERN MICHIGAN CLINICAL SOCIETY

Meeting of the Northwestern Michigan Clinical Society was held on the evening of July 7, 1922 at the Traverse City Country Club. Some twenty-four members were present. Meeting was called to order after an elaborate dinner, by Dr. Moore, president. Minutes of the last meeting were read and approved a discussion as to places of meeting and clinics following.

On invitation of Dr. Fralick, the Society decided to hold a meeting at Glenn Lake some time in August, date to be fixed by Dr. Fralick.

A very interesting paper was given by Dr. Shambaugh of Rush Medical College, dealing with conditions of the ear, nose and throat. This paper was followed by a discussion which brought out many phases of ear, nose and throat trouble. The doctor also laid stress on the importance of being conservative relative to operative work on ear, nose and throat and the operator should be not only skillfully trained in operating, but should also be able to say the operation was needed as well.

Meeting adjourned at 10:15, all present having reported that they were very much pleased to have been in attendance.

The meeting of the Northwestern Michigan Clinical Society was called to order by President S. C. Moore August 25, 1922 at the Traverse City Country Club. Some twenty-two members being present and many guests. Following an elaborate dinner given by the Country Club a short business meeting was held. Minutes of the last meeting were read and approved. The matter relative to the picnic at Glenn Lake was taken up and after some discussion it was decided that this meeting should be postponed until another year. A suggestion was made that the next meeting hold an Orthopedic Clinic.

At this point the program was turned over to Dr. J. F. Gruber who had been able to secure for the Society, the two Doctors from Battle Creek. Dr. Gruber first introduced Dr. Pritchard who gave a talk on "Non-surgical Conditions of the Chest." Following this, Dr. Mortensen talked on "Renal Efficiency." Both of these papers and discussions proved to be very interesting and beneficial to the members.

Dr. Watterson who was with the United States Veterans' Bureau gave a very interesting talk on how to "Undiagnose Tuberculosis." He told something of the greater problem which the government has had in dealing with this classification.

Dr. Ward of the Mutual Life Insurance Co., of New York who was also a guest gave a short resume of the evening's program and its relation to insurance examinations.

Dr. Parnell of the University of Michigan was also a guest at this meeting and made some very interesting remarks.

Interest shown at this evening session demonstrated the value of the Society to the physicians in this vicinity. A vote of thanks was given the Battle Creek physicians for their program.

Meeting adjourned at 10:30, all present having conceded that it was one of the best evening programs which we have had.

O. L. RICKER, Secretary.

Book Reviews

ENDOCRINE GLANDS AND THE SYMPATHETIC SYSTEM. By P. Lereboullet, et al, translated by F. Raoul Mason, M. D., Instructor of Pediatrics, New York Post-graduate. With the collaboration Daniel R. Ayres, A. B., M. D. Cloth, '375 pp. J. B. Lippincott Co.

The endocrines have been the subject of much discussion and many theories. Much that is foolish has been written. It is time that a sane basis was reached for therapeutic purposes. This text is clear in its presentation of proven facts and thus becomes a guide that will authoritatively enlighten the reader. It covers the physiology as well as the pathology and thereby assists in clarifying normal and pathological conditions. It is a text meriting much commendation.

DISEASES OF THE THYROID GLAND. Arthur E. Hertzler, M. D., F. A. C. S., Professor of Surgery, University of Kansas. Cloth, 240 pages. Price \$5.00. C. V. Mosby & Co., St. Louis.

This text arrests special attention because it is the writer's personal experience in a limited community. He has imparted a discussion that is not influenced by the surroundings of a large clinic. His application of treatment is based upon end results that extend beyond the patient's dismissal from the hospital. It therefore is a text of great practical value.

The chapter on hospital management and care of these patients enhances the value of the text as a whole. All in all this text is destined to be of material aid to the internist as well as the surgeon.

PRINCIPLES AND PRACTICE OF X-RAY TECHNIC FOR DIAGNOSIS. John A. Metzger, M. D., University of California. Cloth, 61 illustrations. Price \$2.75. C. V. Mosby Co., St. Louis, Mo.

These principles will enable the student and operator to make a more correct diagnostic interpretation. It describes and illustrates exposures, positions, developing room appliances and technic.

It should prove to be of material assistance to every radiologist in the systematization of his work.

DISEASES OF THE SKIN. Henry H. Hazen, A. B., M. D., Professor of Dermatology, Georgetown University. Second edition, cloth, illustrated. 602 pages. Price \$7.50. C. V. Mosby Co., St. Louis.

The text has been rewritten and emphasis has been laid upon radio and active ray therapy. Common diseases are fully described and treatment intelligently discussed. It is a text that will enable the general man to recognize and properly treat skin lesions that are common in his practice.

It merits a place in the library of every active physician.

OBSTETRICS FOR NURSES. By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (6th) edition, entirely reset. 12mo of 525 pages, with 245 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth \$3.00 net.

This new edition has been entirely revised and

reset and includes every recent development of proved value. In addition to the text which excels all others, the features are its 245 illustrations, the correlation of the work of the nurse and physician, the emphasis of the human side of obstetrics and the glossary of important terms.

No nurse is competent to attend an obstetric case until she has mastered this text. It should be the text of every training school.

FROM THE SALICYLATES TO CINCHOPHEN

The salicylates have had their day. One by one, those who have been prescribing them in years past are turning to Cinchophen. And they are wise to do so. For clearly Cinchophen is the better drug in many cases of acute rheumatism and other painful conditions.

Precisely how it acts within the body is still a question. But we do know that neither the salicylates nor any other drug so sharply increases the elimination of uric acid. A decided increase is obvious in the voidings and can be demonstrated easily by urine tests.

Simultaneously, in a rheumatic person, the subjective symptoms disappear or, if persistent, become less troublesome. A pleasing fact to note is that Cinchophen is less irritating to the kidneys than the salicylates. Albuminuria occurs but seldom; when it does it is not nearly so severe.

The Abbott Laboratories, Chicago, announce lower prices for Cinchophen, which is well seeing that the drug is so useful. The same firm is also making Neocinchophen.

ACRIFLAVINE

This drug continues to attract users, the verdict of whom is that it is a valuable new asset in genito-urinary practice. It appears to terminate an attack of gonorrhea in less time than other germicides employed by injection or irrigation. Presumably this is due to its exceptional penetrability.

An increasing number of physicians are prescribing it by mouth, as a urinary antiseptic. For this purpose, however, only a strictly pure and high grade salt should be prescribed, such as that supplied by the Abbott Laboratories, Chicago. Their Acriflavine more than meets the tests for purity required by the Council on Pharmacy and Chemistry of the American Medical Association.

This firm is supplying tablets of suitable grainage both for making solutions and for oral use.

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The Journal

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Vol. XXI

GRAND RAPIDS, MICHIGAN, NOVEMBER, 1922

No. 11

Original Articles

MANAGEMENT OF THE CARDIO-RENAL CASE*

M. A. MORTENSEN, M. D., F. A. C. P.
BATTLE CREEK, MICH.

The cardio-renal case justly demands our earnest attention; first, because every practitioner meets the problems connected with this type of case every day in his daily practice, and, second, because this group of diseases has shown a steadily increasing mortality rate in the United States registration area for many years. We must also bear in mind the rather prolonged morbidity of this group of cases, with its associated economic factor.

In dealing with any group of diseases we always seek the cause as a guide in the management or treatment. In the cardio-renal case we are still more or less uncertain as to the definite cause of the disease, but, nevertheless, most authorities are agreed that some form of toxemia, as a rule chronic in type, is the fundamental cause. With these facts in mind it becomes our duty to study our patient from all angles to ascertain the presence of any possible source of toxemia. First, it is a good practice to search for any possible focus of infection, and this includes a careful study of the teeth, tonsils, sinuses, gall bladder, appendix, prostate and female pelvic organs. If we find reasonable evidence of chronic infection in any of these localities, they should be removed on general principle in order to help the body resist degenerative processes in the cardiovascular renal system. Another common source of toxemia is the intestinal tract and it is very essential that this should be given special study because there is no doubt that intestinal stasis becomes a disturbing factor in the well-being of the cardio-renal case.

Assuming that we have a proper conception of any possible etiological factor, we next must make an inventory of the present status of the patient. This means a careful search for any

symptoms of cardiac or renal disease. The condition of the heart is very important, because any failure on the part of this organ means an added burden to the already limited kidney efficiency.

Knowledge of the renal efficiency is very essential in guiding our efforts in behalf of the patient. Various methods may be used to ascertain this, but the simpler the method the more easily can the general practitioner keep himself informed as to the status of his patient. The Mosenthal renal diet test is probably the most complicated, but perhaps gives us the broadest knowledge of the efficiency of the kidney. It requires first class laboratory facilities, as well as trained technicians to carry out the details. The chemical analysis of the blood perhaps comes next in value, when it is thoroughly and carefully done. This means that an estimation of the non-protein nitrogen, uric acid, creatinin and blood sugar must be ascertained. There is also the phenol-sulphone-phthalein test, which is perhaps the one most frequently used. This, however, has its limitations, especially for the general practitioner.

More recently careful investigation has been made with reference to the urine concentration and diuresis test, and this is, by all means, the simplest means of studying renal efficiency. These tests have been especially developed by Olmstead, of St. Louis, and consist in having the patient go without food or water from supertime, or approximately 6 P. M., until 6 A. M., at which time the bladder is emptied. The patient is instructed to go still another three hours without food or water and to collect the urine passed during this last three-hour period. The quantity should be carefully measured and the specific gravity taken. Urine should also be examined for albumin and casts, a procedure which can easily be carried out in any physician's office.

In a normal concentration the patient would pass from 60 to perhaps 100 cubic centimeters, varying somewhat according to the size of the individual, with a specific gravity of 1.020 to 1.035. In cases of renal inefficiency it is not unusual to get a quantity of 200 to 600 cubic centimeters, at a specific gravity of from 1.005

*Read before Section on Medicine, M. S. M. S., Flint, June, 1922.

to 1.010, indicating that the ability of the kidneys to concentrate urine is very limited, and this means that efficiency of the kidney is interfered with.

It is also essential that careful blood pressure estimations be made in these cases, and we must use care and judgment in our technic so as to get a correct reading. Preferably the patient should be freed of all apprehension and have sufficient time to rest so as not to include the influence of exercise in the systolic pressure. It is imperative to have a correct reading of the diastolic pressure, because in my experience I am convinced that a diastolic pressure that persists above 100 or more millimeters of mercury means beginning renal inefficiency, and the higher the diastolic pressure the more serious the situation, as this means a continuous strain on the blood vessels.

In such cases we practically always find an increase in the nitrogen waste products in the blood and frequently an increase in blood sugar. These facts, when ascertained, give us an idea of the strain on the heart and blood vessels and serve to guide us in our instructions to the patient relative to physical effort.

In the examination of the heart, it is very important to get a correct idea of its size, which may be obtained by careful percussion or by X-ray. This gives us an idea of the intensity of the circulatory strain, both as regards severity and chronicity. A study of the heart sounds, both as to valve and muscle tone, should not be forgotten. Careful study of the conditions of the blood vessels is also important, and if one makes a systematic observation of the brachial arteries it is surprising how often definite evidence of arterial degeneration is found. A thorough investigation of the patient's condition, as outlined, will give valuable information as to his status and a basis for further observation.

Every detail of our instructions to the patient, as to his daily habits of living, is of great consequence; because of the fact that when cardio-renal disease is first established we have no means of producing a cure, therefore, we must put the patient in the psychological attitude of accepting the situation and making the best of it, and a thorough study, as suggested above, forms a good basis for impressing him as to his condition and what must be done.

First, it is essential to have the patient's cooperation in eliminating all possible infection and also in avoiding infections that increase the body toxins. The next most important factor to impress on his mind is the diet and care of the gastro-intestinal tract. Unfortunately, the laity's conception of a rational diet regime, even for a normal individual, is very vague. The student that goes to agricultural college gets in-

structions as to how and what to feed various domestic animals to get desired results, but we and our children go through school curriculum without any clear or concise instructions as to a normal, balanced ration, and much less what diet should be instituted in case of illness.

In my experience such instruction has been productive of the greatest benefit in the major number of cases that have come under my observation. He should be given a proper conception of the nutritive elements in the different types of food, and especially those that are rich in protein. Here, of course, we must vary our instructions somewhat, according to the severity of the case and the psychology of the individual. It is my practice in all cases that have high diastolic pressure with other evidences of renal inefficiency, to put them on a strictly non-flesh diet, and I suggest that they use perhaps one egg a day, together with two or three glasses of buttermilk as their source of protein. Unless the individual is physically active this will give a sufficient supply for the body needs, because other articles of diet will contain small amounts of protein, and thus the total intake is brought up to about 50 grams per day, which is ample. In the more severe cases we often further limit the protein intake. It is also imperative to impress upon the individual the necessity of being moderate in his total intake of food. There is no doubt that the great majority of people indulge in much more food than the body really needs, and this is decidedly detrimental to the cardio-renal case. If weight is normal then they should be instructed to take just sufficient food to keep it at that point, and it is surprising many times how the intake of food can be lessened and still maintain a proper weight.

In all these cases intestinal elimination must always be considered, and in my experience it is best to advise the use of fruits of all kinds that agree with the individual, together with the coarser vegetables or greens. This may have to be supplemented by the use of bran, mineral oil or agar agar, in order to insure good intestinal elimination. I strenuously object to the recommendation often made of taking saline each morning on arising. In the course of time this produces a spastic, catarrhal condition of the colon and sooner or later will interfere with intestinal elimination.

In the obese case, which is a common occurrence in this group of diseases, it is very essential to restrict the diet so as to have the patient loose gradually to the desired weight, then he should be instructed to curtail eating, according to his fluctuations in weight. Many of these patients are of the type that over-indulge in food, and, consequently, they are often surprised to find how little food is required to

maintain weight at its normal. It is also very important to impress upon these individuals the necessity of being sparing in the use of salt and to eliminate the use of various condiments. The use of these ingredients are of no physiological benefit to the body and only serve to stimulate appetite and to make it more difficult for the individual to maintain a properly balanced bill of fare.

Some have reported that the low protein diet does not lower blood pressure, or vice versa. So far these reports are premature, as the ones I have seen have been based on short periods of observation, and my experience, as well as that of others, rather emphasizes the necessity of carrying on this regime over long periods of time. Some cases respond quickly and others may not respond at all. However, the latter group is rather small, except in the advanced cardio-renal case, with emphasis on the renal phase, as evidenced by the very high diastolic pressure.

A word should be said concerning physical activities in these cases, and in order to give proper advice along these lines it is very necessary to form a definite opinion as to the capacity of the heart so as to give them an idea of the amount of effort permitted. It is our practice to urge these individuals to devote considerable time to walking, but to keep within the limits of producing fatigue. I know of no better exercise to recommend than walking in cases with good myocardial efficiency and golf as the best form of recreation. Many of these people must also be warned against sudden effort, such as running to catch a street car, and when traveling to avoid carrying baggage to or through the trains, as such effort often causes serious symptoms of decompensation.

Medicinal treatment is of very little value, excepting from the symptomatic standpoint. In the case that shows signs of failing heart I know of nothing better than digitalis to be used in doses, according to size of individual and the degree of decompensation. Again we may also have to resort to diuretics to stimulate the activity of the kidneys, and here diuretin, or similar drug, is of great value, especially when given with digitalis. In patients having a tendency to symptoms of angina pectoris diuretin is also of benefit in a certain percentage of cases, but nothing is better to eliminate the occurrence of pain by improving myocardial efficiency than digitalis. For emergency nitroglycerine must be used to relieve chest pain.

In conclusion I wish to suggest that the medical profession take active interest in any effort that is being made to interest the laity in rational habits of living, and particularly in teaching them what is a rational or balanced bill of fare. At the present time most people

are guided entirely by appetite as to intake of food, regardless of whether it is a properly balanced ration. When the laity understand what is a rational dietary and also realize the importance of eliminating all chronic foci of infection, the occurrence of this group of diseases will be greatly diminished, and, in my opinion, it is up to the medical profession to encourage the adoption of a proper educational curriculum in our schools and colleges so that the coming generation may be properly informed on the subject of diet at least.

DISCUSSION

DR. FRANK J. SLADEN, Detroit: I have been asked to open this discussion. I am heartily in accord with the views expressed by the essayist. He has covered the field very completely. We still have some trouble in individual cases, no matter what resources we use.

The first picture in my mind in reading the title of Dr. Mortenson's paper was the cardiorenal case that is perhaps not so frequent now in our experience as it used to be—the individual with myocardial insufficiency, with hypertension, with diminished urinary output, and perhaps signs of impaired renal function, with retinal hemorrhages of which we saw more years ago than now. It is not always easy to determine whether the disease is primarily cardiac or renal. Our interest concerns those patients who have not reached this extreme advance in the two domains of renal and cardiac disease. One would naturally suppose that every case ultimately would be cardiorenal, with much damage to one or the other organ. In most instances we are assuming the trouble is cardiorenal, or cardiorespiratory, or cardio anything if the patient is disorganized. It is a circulatory problem. We cannot differentiate these cases as to whether they are primarily renal or cardiac, and certainly we have reached the limit of our resources in repairing the disorganized circulation.

I was particularly interested in what Dr. Mortenson said with reference to diet. It seems to me, we are on the threshold of some real things in the dietary treatment of chronic disorders.

The one feature of cardiorenal cases which attracted my attention and interest has been those patients who early in their career or at later stages present themselves with hypertension, patients in whom it is difficult to determine the cause of hypertension, where all the tests referred to of renal function are quite satisfactory. We take it for granted that a chronic case of nephritis or a cardiorenal case does not develop over night. There must be degrees of severity in the process of development in these degenerative conditions. In these cases of hypertension we are at a loss to determine the cause of the hypertension, and we try to satisfy ourselves at the time whether in such cases there may be impaired renal function accompanied by renal or cardiac case under surroundings that are hypertension. We should immediately put the most protection to that patient. If we consider the renal functional tests, none of them demonstrate renal function under a load.

Little has been done on that point alone. Addis, of San Francisco, has published a report on giving large doses of urea, and several points have been brought out in connection with cardiac cases, and among them the method of examination. Myocardial function under strain should not need protection. At the present time we are investigating cases of suspected renal disease under protection.

So far as the present tests of renal function are concerned, they open up possibilities. From

the experience we have had during the last winter, in several instances we felt absolutely sure of an impending uremia in a renal case, and yet the patient went through with only a moderate impairment of function. We have gone a step further in the investigation of that case and have found out from urinary investigation and blood stream investigation that the various elements are excreted by the kidney.

Reference was made to the remarks of Dr. Crile of giving oxygen to the tissue cell which, after all, is an important factor in connection with toxemia, and of which we know very little at this time.

DR MORTENSON, (closing): I have very little to add to what I have already said except to agree with Dr. Sladen in studying these cases under various conditions. We may look upon the urine concentration test as forcing the kidney in its ability to concentrate urine. We can be reasonably certain that if it cannot concentrate urine at the end of fifteen hours of absolute absence of intake of water or food, we are putting a strain on the kidney. I might amplify what I have said relative to the tests in these cases. I had recently a case that was very interesting in which there was a history of albuminuria for twelve years. The patient was forty years of age and had never been able to obtain life insurance because of albumin. He came to me, and wanted to know what the situation was relative to his kidney. We made various tests involving blood estimations and found the blood condition to be absolutely normal. We gave the urine concentration test. That was normal. We went a step further and had him drink two and a half liters of water in two hours time and to save the urine. From the time he started drinking that water until the three hour period was passed, he eliminated 2100 c. c. at a specific gravity of a 1002, showing the capacity of his kidney at the various extremes was normal. By that simple test I felt justified in telling him he need not pay special attention to the presence of albumin in his urine; that his kidneys were able to do their work properly; that with ordinary precautions I saw no reason why he should not live a natural life in health, so that it is very important to get the present status of this type of cases to formulate our plan of regime in managing them.

Relative to impending uremia mentioned by Dr. Sladen, I have had some peculiar experiences in that regard. Of course, we expect in uremia, when we examine the blood, to find a high content of nitrogen in the waste product. Every now and then, say two or three times a year, I get a patient of this sort that has perhaps convulsions, very high blood pressure, and so on. But on examination of the blood we find very little that is abnormal. Is it not possible that we have in the blood some other substance that perhaps comes from a faulty metabolism, and we have not learned to estimate in the blood what causes these symptoms of uremia? We have a very interesting problem before us in the study of this type of cases.

THE RESPONSIBILITY OF THE GENERAL PRACTITIONER TO THE PHARMACOPOEIA*

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The subject which I would place before you under whatever title it may be called, whether it be the relationship or the responsibility or

the obligation of the general practitioner to the Pharmacopoeia, is, briefly stated, the improvement of our official list of drugs—the simplification of our materia medica. The term “Pharmacopoeia” then is symbolic; it represents the drug needs of the entire nation as expressed in the prescriptions of the practitioners of medicine from Maine to California; from Oregon to Florida. Yes, and even wider as we must broaden our thoughts to include also Cuba and the Philippines. It is not out of place nor untimely to consider the subject now, inasmuch as the Pharmacopoeia is undergoing its decennial revision and it becomes a matter of the greatest interest and importance to decide what drugs shall and what drugs shall not be included within its covers. For many years past the Pharmacopoeia has not been held in very high esteem by the rank and file of the medical profession due partially, perhaps, to a misconception of its function. It has been felt by many that it did not represent the best in therapeutics and was therefore not abreast of modern medical practice. Many widely used drugs were not within its pages while multitudes of others that were largely superfluous or useless were retained. In short, the book, largely due to medical neglect perhaps, has not represented the best in medical thought and it has therefore been widely ignored. In discussing its function it must be remembered that the book must not be considered as a treatise on therapeutics but at the same time it may be said that it should represent the best in therapeutics and not the worst. It is indeed a book of standards, but obviously it cannot attempt to standardize every drug which is used by the 150,000 practicing physicians of the United States, Cuba and the Philippines. And therein lies one difficulty. Who shall decide the question or draw the line between a skeleton pharmacopoeia which would satisfy the needs on the one hand of a professor of medicine who is engaged in a limited hospital practice, and the requirements of a government official who is responsible for the standards of all the drugs which are imported into this country? Both men have legitimate needs and arguments to support them and it is the task of the pharmacopoeial revision committee to decide between them.

Within the revision committee the responsibility of deciding what drugs shall be included in the book has been delegated in this revision to the medical members of the committee. Certainly a very logical decision. It would seem axiomatic that questions of a medical nature should be decided by the physicians on the committee while those concerning pharmaceutical problems should be left to the pharmacists. Simple as this rule may seem the present re-

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vision marks the first in which it has been adopted in modern times. The importance of this rule insofar as the pharmacopoeia is concerned can hardly be overestimated. It lays a great responsibility upon the physicians of the committee—they must weigh most carefully the claims of the different drugs and preparations and then make their decisions, basing them upon the best scientific knowledge of the day, combined with a knowledge of the needs of the country as reflected in the prescriptions of the practitioners of medicine. It is in regard to this latter phase of the question that the great difficulty arises. It is impossible to please everybody. It would be easy perhaps for each of us to prepare a list of drugs which, according to our own views, would meet the scientific test and which at the same time should satisfy the needs of the medical profession, but how would these lists agree? Many of the important drugs, such as opium, mercury and digitalis, would doubtless appear upon all the lists, but there would be many more upon which there would be no agreement. They would be accepted by some, only to be rejected by others. Variations such as these depending upon the personal preferences of the individual physician have resulted in the present pharmacopoeia with its 800 or 900 drugs. Take for instance the bromides—who shall say that all physicians shall use either the sodium or the potassium salt to the exclusion of the ammonium, calcium or strontium salt? And yet to admit all these salts would add unnecessary drugs to the official list for the sake of securing a bromide effect. Similar statements can easily be made as to the various salts of the iodides and of the salicylates. Also, should a physician be limited to one salt of each alkaloid? Something can certainly be done to shorten such lists and it might seem that the revision committee should exercise its undoubted power and eliminate at least some of these duplications. But it would not be wise to go too far. The bromide or the iodide effect is undoubtedly obtained from all these salts and so the patient does not suffer, and that is really the important thing, and it is certainly true that some physicians have a decided preference for one salt over another, and they should be allowed that freedom of choice.

With some other drugs the situation is not exactly the same, as they are not all of equal value and the best should be chosen and the others deleted. Take digitalis, for example. Here the tincture is without doubt the best preparation and there is no necessity for any other. Nor, for oral administration, is there a need for any of the digitalis substitutes, such as strophanthus, squills, or convallaria. If therefore, the tincture of digitalis is the best preparation in this group it certainly follows

that it should always be administered to patients and there is no necessity for admitting any other preparation in this series except strophanthin for intravenous injection. The physician *should* have freedom of choice, but that choice in all justice to the patient must be based upon the best scientific knowledge available whether it comes from the bedside or from the laboratory, and usually the best results are gained by checking the data obtained from one source against that obtained from the other.

After all then, is not the pharmacopoeia primarily for the general practitioner of medicine and not for the specialist nor for the government official and does not its improvement, which really means its simplification, depend upon him? As a matter of fact, from the practical standpoint, it cannot advance faster than the rank and file of the profession. We have to face the facts even though it injures our pride as a profession. The pharmacopoeia is still filled, or at least littered, by useless or inferior remedies because these remedies are still prescribed to a considerable extent by the profession. If an effort is made to delete some of these worthless or inferior drugs there is an immediate and more or less widespread protest against such action, the protest being based upon the fancied needs of the profession. Already protests are being registered against the omission of certain drugs which the committee has voted to delete. And yet we must not be too pessimistic, as progress is being made. Already over 100 preparations have been selected for deletion and about 200 more are still under discussion. About 500 preparations which are in the present pharmacopoeia have been readmitted to the new revision and some 30 new ones added, such as acetyl salicylic acid, organic silver compounds, barbital, arsphenamine, procaine and dichloramineT. Now, if this number of items is to be curtailed in future editions and we really are to get a pharmacopoeia of convenient size and containing only drugs and preparations which are believed to have medicinal value, the initiative must come from the medical profession.

Physicians must endeavor to ascertain as accurately as possible the latest knowledge upon the action and usefulness of the drugs they employ. How many physicians purchase the latest works on pharmacology with the same regularity that they buy new editions on surgery or medicine? Do not too many of them rely upon the pharmacologies which they used as sophomore or junior medical students, and many of these books I am afraid are as dusty as the family bibles.

Omitting now the knowledge of drug action which comes from personal experience, which, with the exception of a few well tried remedies,

is exceedingly hard to gauge and evaluate in a practice confined largely to the homes of patients; and the information derived from standard textbooks and articles in the best medical journals, there is still another source of information which it would seem must be largely relied upon by a certain group of medical men. This mine of so-called information is the advertising columns of many medical journals and the pseudo-scientific literature of drug houses which floods our daily mail. The preparations so advertised must be prescribed by physicians or the manufacturers could not meet their advertising bills. What real knowledge can any physician have of the true composition of such preparations? The great majority of them are irrational and unscientific mixtures designed primarily for the enrichment of the manufacturers. They are recommended for this ailment or that and their appeal can only be to the unthinking physician and yet, as I have said, they must be extensively employed. The claims of even the better remedies in this group are too often supported by scientific literature which is really not scientific, or, what is still more dangerous, is only partly scientific. It is neither unprejudiced nor unbiased. If an up-to-date example be needed all we have to do is to read the current vitamine literature and advertisements. I might add, by way of parenthesis, that if the manufacturers should tell only the truth about the vitamins, and by that I mean the whole truth, there practically would be no call for them as drugs in this country. Some one would certainly suffer in such a case, but it would not be the public.

To come back once more to our subject: Can progress in scientific materia medica be made by any such means? And yet, are we going to stand still? Are we going to say that no physician shall prescribe any drug unless it is in the U. S. P.? If we make such a demand how are we going to make any progress? Where are our new drugs to come from? The pharmacopoeia is from the very nature of things bound to be conservative and may even be said to be years behind the most advanced scientific therapeutic thought. But the pharmacopoeia must grow and this growth must be not only by the leaving of dead and useless material behind, but by the addition of new and well tried remedies. But how can they be proved or be weighed in the balance if the average physician is not furnished with an exact statement of the composition of the preparation and also has not at his disposal the time or facilities for making a just estimate of their probable value?

It was exactly that question which confronted the organized profession some twenty years ago, when an effort was being made to

rid therapeutics of the multitudinous so-called remedies which had been foisted upon it by commercial interests. An answer to the question was found in the establishment of a national committee or referee board known as the Council of Pharmacy and Chemistry of the A. M. A. This committee or council is composed of sixteen members representing chemistry, pharmacy, bacteriology, pharmacology and internal medicine, including pediatrics. For some seventeen or eighteen years this council has been functioning as a judicial body, passing upon the claims which are submitted for new remedies and admitting those which conform to its rules into a book which is known as the "New and Non-Official Remedies." The rules of the council as they stand today are an outgrowth of the experience gained through many years. They are formed primarily with a view to protect the public and the profession from fraud, undesirable secrecy and objectionable advertising. One of the fundamental rules which must be met in order that a remedy may be considered for admission into "New and Non-Official Remedies," is that its composition must be furnished to the council together with tests for its purity and identity. The reasonableness of this rule is evident to every physician, as it is his right and duty to know the essential composition of every remedy which he prescribes for a patient. Direct or indirect advertising to the laity is not permitted as tending to self medication and concealment of serious disease. The irresponsible claims which are made in the lay press are especially undesirable and the cataloging of symptoms and indications for a remedy either in the newspapers or on the packages of the drugs have often unfortunate effects. All physicians are familiar with the harm resulting from such exploitation.

No false claims or statements may be made as to the origin of an article nor shall unwarranted therapeutic claims be made for any remedy. Certainly reasonable demands! There is nothing in any of the rules which would interfere in any way with the introduction to the medical profession of any new remedy which might promise therapeutic value provided it is introduced in an ethical manner, suitably named and no false or misleading statements regarding its composition or therapeutic value be made for it. Why should any manufacturer object to the work of the council if the remedies they introduce are intended primarily for the benefit of the suffering public? It should be clearly understood also that the work of the council is not primarily for the benefit of the physician, but only to enable the physician to serve the public better by furnishing him accurate information concerning the newer remedies he might wish to employ. The phy-

sician is then in a position to test the substances intelligently and if after three, five or ten years they prove of value, they may be admitted to the U. S. P., while if they have not lived up to expectations they may disappear entirely from therapeutic use.

The council is seeking also in other ways to aid therapeutics and to this end has published a little book upon "Useful Drugs," giving in a concise manner the main facts concerning the more important drugs. It has, through its Committee on Therapeutic Research, supervised and supported numerous research problems upon subjects of therapeutic interest. It has sponsored many articles upon different aspects of therapeutics, among the most recent of which may be mentioned a series of papers on "Biological Therapy," in which an attempt has been made to place before the medical public the present status of this important subject. Another article which might be mentioned is the recent statement concerning quinidine, in which the present state of our knowledge concerning this interesting drug is given for the benefit of those interested.

These articles are prepared either by some member of the council or by someone else selected by the council whose special work and study has made him capable of speaking with authority upon the subjects assigned. And here it might be pointed out that the council does not by any means base its decisions alone upon the views of its own members but has always had the aid of a large group of consultants representing all sections of the country and every phase of medical practice. Much of the value of its work is due to the help and advice which it has so freely received from this list of consultants.

All of the work of the council of course is not entirely pleasant. Many times preparations are considered by it which must be declined recognition either because of false statements concerning constitution, or because exaggerated and unwarranted therapeutic claims are made for the preparation or for failure to comply with one of the other rules of the council. One of the hardest rules to enforce is the one concerning therapeutic claims. How much leeway shall be allowed the manufacturer for therapeutic optimism, fortified as it is often by testimonials from physicians. Here, of course, a conservative attitude must be maintained, but usually in such cases the claims made are of such a character that there is little difficulty in drawing the line between probability and absurdity. Also, in case of doubt, the question might well be asked whether the manufacturer

or the patient be given the benefit of the doubt. It is a case of "dividends" versus health, or even life itself.

Such then is in brief the contribution which the American Medical Association, through its Council on Pharmacy and Chemistry, is endeavoring, to make to the progress of rational therapeutics, and the question arises as to what the practicing physician can do to assist.

First, I would say support the work which is being done by prescribing only U. S. P., and N. N. R. remedies. Referring only to the latter publication it would be an encouragement to the manufacturer who is trying to advance therapeutics along legitimate and ethical lines to give his products the preference. How many physicians, when they see a statement in the Journal that a product has been dropped from N. N. R. for false and misleading claims cease to prescribe it, or what would be even more helpful, write to the manufacturer and protest against such claims being made. I believe no action which a physician could take would be of more assistance to scientific therapeutics. If a remedy comes within the scope of the book and is not included find out why it has not been accepted. Ask manufacturers why it is necessary to make claims for apparently valuable drugs which are not justified or are unwarranted, making it necessary to include such drugs in a special section in the back of N. N. R. Such requests for information would be highly effective, as manufacturers are very susceptible to the springs which feed their treasuries.

Secondly, physicians can often make valuable contributions to therapeutic knowledge by reporting observations which they have made upon the actions, advantages or disadvantages of certain drugs. Accurate observations are from the very nature of things hard to make in the homes, but with the growth of local hospitals, improved opportunities will be available for such work. And finally, to come back to our starting point, it must be remembered that the U. S. P. is not the final word in therapeutics. It must grow—by deletions and by additions. *Materia Medica* must progress, but it can only do so along scientific lines. New drugs are welcomed provided they show signs of therapeutic worth and are marketed along ethical lines. It must not be supposed that such drugs are primarily to furnish dividends to stockholders. They are first of all for the relief of the suffering, and physicians as agents for their administration, are entitled to know absolutely what they are prescribing and to have proper standards of strength and purity provided for the same. No physician can afford to demand less.

NITROUS-OXIDE-OXYGEN ANAESTHESIA IN MAJOR SURGERY*

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The fact that the two foremost American Surgical Clinics have made radical changes in the methods of surgical anaesthesia in the past two years tends to prove that the topic of anaesthesia is a live subject and by no means a closed chapter.

Ether, nitrous oxide-oxygen, and chloroform are essentially the inhalation anaesthetics in use in this country today. Chloroform[‡] has been practically removed from the armamentarium of the surgeon as too dangerous an agent, though it still finds favor with the general practitioner and in obstetrical practice. Local anaesthesia has made vast strides in the past fifteen years so that it is now possible to do essentially 80 per cent of all surgery by means of this method. This has been made possible by the perfection of novocaine, which is essentially non-toxic in the amounts necessary for good anaesthesia.

In the selection of the anaesthetic we have three important considerations: (1) Primary mortality; (2) delayed mortality; and (3) morbidity. As a result of the elimination of chloroform, the primary mortality has been markedly reduced. There still remains, however, a small percentage of deaths on the operating table from the anaesthetic per se. This again has been markedly reduced in the hands of the trained anaesthetist. Of delayed deaths, or deaths shortly after the patient has returned to bed, there is still a large number. This is especially true in the use of ether. While the anaesthetic is only one of the factors, it is undoubtedly the greatest factor in a large percentage of cases. The term shock is used in a sort of vague way to describe a phenomenon about which we seem to know as yet but little. That hemorrhage and trauma play a part we know only too well, but still we see cases which have had little trauma and no hemorrhage with rapid pulse, drop in blood pressure and a general state of depression after a deep ether narcosis.

The subject of morbidity has increased in importance with the general increase of surgical therapy in the treatment of various pathological conditions. Patients are no longer satisfied and the operation is not classed as successful by the laity if the patient merely es-

capes with his life, for he had that before the operation. How often must surgeons explain to their patients that a long time will be required for them to recuperate from their operation and only too often do the patients find this true. With the improvement of surgical results has come an increased confidence on the part of the public and a willingness to submit to early operation. This is particularly noticeable in appendicitis, exophthalmic goiter, etc. An early operation often lowers the morbidity, not from the operation itself, but due to the prevention of degeneration of other organs—the heart, the liver and the brain—as a result of disease. Early operation is thus the greatest factor in lowering morbidity in most cases. If we were to get all surgical cases early there would be essentially no mortality and a much lower morbidity. But unfortunately for various reasons, a large percentage of patients still get to the surgeon late, so that the mortality of the seriously ill is still appalling. If we are to further increase our good results, it must be by more attention to those seriously ill, i. e., those suffering from shock, from starvation, from sepsis, and from toxemia.

In the consideration of the latter class the choice of anaesthesia is of paramount importance and by its selection and skill of administration will our end results in no small way be influenced.

Nitrous-oxide gas combined with oxygen in the proportion of about 85 per cent to 15 per cent has been gradually gaining in favor as the anaesthetic of choice in major surgical procedures. It has the advantage over ether and chloroform that it does not of itself produce shock, that it is pleasant to take, that it is eliminated as soon as the anaesthetic agent is withdrawn, that nausea and vomiting as a result of the anaesthetic agent are minimized, and, that when properly given, it has the smallest primary and secondary mortality. If the latter sweeping statements are true, why should nitrous oxide-oxygen not immediately supercede all other inhalation anaesthetics. The answers are many: (1) The expense far exceeds the cost of other agents, (2) it requires a highly trained anaesthetist for its administration, (3) the apparatus for its administration is cumbersome, complicated and expensive, (4) it is impossible to get the required amount of relaxation necessary in some operations especially within the abdomen and pelvis, and (5) last, but not least, the anaesthetic is much more trying on the surgeon.

Do the advantages over-balance the disadvantages? Our answer, after six years of use of gas as a routine anaesthetic, is most certainly in the affirmative. We are not dogmatic however and recognize its limitations. From the

*Read before the Surgical Section, Michigan State Medical Society, Flint, June 9, 1922. From the Department of Surgery, Jefferson Clinic.

‡Blain—A Clinical Study of General Anaesthesia. New York Medical Journal, May, 1898.

standpoint of the operator, gas has its limitations. How are we then to overcome these shortcomings? This can be accomplished by the combining of local anaesthesia with gas. As we have stated above, a large percentage of all surgery can be performed under local anaesthesia. But local anaesthesia alone does not eliminate the psychic factor—the mental anxiety alone being an important factor in the production of shock. If this is attempted by the use of larger doses of morphine, we are treading on dangerous ground as morphine is safe only within certain limits. The use of local anaesthesia alone gives in many cases a demonstration of the skill of the operator, but too often it amounts to skillful surgical gymnastics with the patient playing the role of an unappreciative listner. However, local anaesthesia does eliminate the local pain and the conduction of traumatic impulses to the brain. The fact that the patient is unconscious regardless of the agent, does not limit the actual damage to the brain cells by the operative trauma. Under local anaesthesia this is made possible. It further eliminates to a great extent the time factor in operating. There is no need for rushing.

There are other factors of importance, among them being the preparation of the patient for operation in elective cases; I mean the mental preparation. The patient is probably not accustomed to hospital routine and is liable to be frightened and apprehensive. All sources of anxiety and worry must be removed and the confidence of the patient must be gained. All annoyances and unnecessary noises must be eliminated. Pleasant surroundings are imperative, and the subject of operation should be avoided to as great an extent as possible. Every consideration should be shown the patient by the doctor, the assistants, the nurses, and attendants. This all constitutes a part of the anaesthesia. A good night's sleep on the night previous to the operation is essential and can be secured by drugs, and for this we prefer the combination of 10 to 20 grains of sodium bromide, 10 grains of chloretone, and $\frac{1}{2}$ to 1 grain of codeine. Our patients, except children and the aged are given $\frac{1}{8}$ to $\frac{1}{4}$ grain of morphine and 1/200 to 1/150 grain of hyosine one-half hour before the operation.

The use of local and gas does not meet all of the requirements of the surgeon in some cases, and at times it is necessary to give a small amount of ether for a few minutes to secure relaxation.

The combination of the above agents has long been advocated by Crile under the descriptive term anoci-association or anociation. He stands today as the foremost champion of gen-

teness in operation, protection of the patient, lower mortality, and lower morbidity.

To return to the subject of nitrous oxide-oxygen as an anaesthetic agent without proper adjuncts, its place in major surgery is very small and in the hands of the average surgeon would give results far inferior to ether. If gas anaesthesia is to be employed successfully in major surgery, the following requirements are absolutely necessary: (1) A trained anaesthetist; (2) the surgeon must work each day with gas and not reserve it for any special class of cases; (3) the patient must be kept pink at all stages of the operation. If the surgeon deviates from any of these rules, he is courting disaster. If the surgeon wishes to employ gas he should meet its shortcomings by other agents, not by increasing the strength of the gas.

The more serious the patient's condition, the better they take the anaesthetic from the anaesthetist's point of view, but the more it becomes a factor of harm. In the seriously ill, analgesia[§] plus local while more difficult to handle, is the best for the patient; it rules out the emotions as well as pain and thus psychic shock is prevented.

If the surgeon selects his patient for operation, eliminating the bad risks; if the height of his interest is in conserving his own mortality rate rather than in the saving of extra lives; if he operates under deep ether narcosis with the relaxation of the post-mortem room, he surely will conserve much of his own energy, but he will fall short of doing his duty as a physician. Carstens used to preach to his internes, "Be a lion or a mouse" and the surgeon of today still needs the heart of a lion in his deliberations. Gas-oxygen combined with local anaesthesia ($\frac{1}{2}$ to 2 per cent novocain) conserves the strength of the ordinary surgical case, eliminates shock, and reduces morbidity from operative procedure to a minimum. Anociation combined with direct blood transfusion extends operability to the seriously ill, the jaundiced, the starved, the diabetic and the highly toxic. By its means it is possible to operate without an increase in the pulse rate or a fall in the blood pressure.

CONCLUSIONS

1) We are concerned today with the further lowering of our surgical mortality and morbidity. Nitrous oxide used as a routine anaesthetic is one of the big factors in accomplishing this end.

(2) Nitrous oxide-oxygen alone is entirely inadequate as an anaesthetic in the great ma-

[§]Crile—Some Considerations of Acute Abdominal Conditions in Gynecology. New York State Journal of Medicine, October, 1921.

jority of surgical operations. It should be combined with local anaesthesia.

(3) In administering nitrous oxide anaesthesia, the patient's color should at all times be pink. If the patient becomes livid the good results of the anaesthesia are defeated and the agent becomes a dangerous one.

(4) Nitrous oxide-oxygen is the safest of the inhalation anaesthetics in the hands of the expert. In the hands of the novice, it is the most dangerous.

(5) Nitrous oxide-oxygen preceded by morphine and hyocine and combined with novocaine (anociation) is an ideal anaesthetic and will give the best results in mortality, in morbidity, and in further extending help to a large class of patients which in some cases are classed as inoperable because of their serious condition.

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DISCUSSION

DR. E. O. SAGE, Detroit: I have thoroughly enjoyed Dr. Blaine's paper on nitrous oxide in major surgery. I agree with him in most instances that nitrous oxide is the anesthetic of choice, always preceded, however, by the use of morphine and hyocine, without which it is almost impossible to get sufficient relaxation, especially in abdominal work. Another thing, if the anesthesiologist knows his surgeon he will find the success of the anesthetic will be much better.

Regarding color, most text-books state that a successful nitrous oxide anesthetic is when the patient is kept pink. In reality the color of the patient will depend on the amount of hemoglobin; for instance, if you have a very anemic patient you will not change the color on giving a saturated solution or a straight nitrous oxide anesthetic, so for that reason you cannot consider the pink color as meaning that the patient is in a condition of sufficient relaxation for operation. The blood pressure is surely a measure of prime importance, especially in the so-called trying out of a patient preparatory to operation. The patient who can be saturated with nitrous oxide and come back and be resaturated will stand almost any surgical interference.

Another feature that I believe Dr. Blaine did not mention was rebreathing. I feel that one of the most important factors in successful nitrous oxide anaesthesia is rebreathing. That can be very easily measured. I believe a machine so constructed that we can see the amount of new gases that go in will help to carry on a very successful anesthetic. That is brought out in this way: Given the amount in cubic centimeters that the patient can breathe, that is breathing at one inspiration or one expiration, and counting the number of respirations per minute, tables have been worked out by some of the best men in the country by which we can estimate a definite amount of rebreathing that will keep up the carbon dioxide that is essential in keeping the patient going.

Too little cannot be said regarding the training of anesthesiologists. The anesthesiologist rather than the doctor is more often I believe in a position to judge the patient's ability to withstand any sort of an operation. I believe if the laity themselves knew of the value of the anesthetic they would surely put more emphasis on who is to give the anesthetic. A very excellent gentleman and doctor whom most of us knew, Dr. Charles Moots, once said that he had told Mrs. Moots if he be-

came unconscious from something that required immediate surgical interference to insist on a good anesthetist; any good surgeon could do the operation.

Another feature regarding the mixture of your nitrous oxide and oxygen, we might say that a mixture of from 75 to 83 per cent of nitrous oxide with enough oxygen to bring the solution up to 100 is good in most instances. You will have little nausea if you guard against having too much pressure on your machine. If you have too much pressure you will have very severe post-operative nausea. The difference is explained by the fact that some people can sleep in a closed room indefinitely without any disturbing respiratory conditions while another individual will require all the windows open in order to be comfortable.

DR. J. H. KELLOGG, Battle Creek: This is a very interesting paper of Dr. Blaine. I have been interested in nitrous oxide for over thirty years and have used it almost exclusively for the last fifteen years. We have learned something by experience of the points brought out by Dr. Blaine. There are two or three other points that might be of interest. The great dangers from nitrous oxide we found were asphyxia and acidosis. The acidosis may depend very largely on the intensity of the anesthetic and the limit of time the patient is under the anesthetic and it also depends upon the condition of the patient before operation. Acidosis is combated generally by the liver. The liver function is to de-toxicate the poisons in the system. Now the liver cannot do this unless it has a good supply of glycogen and glycogen is a production of glucose. Therefore, the best way to protect the patient against acidosis is to give glucose before operation. This is accomplished by giving large quantities of malt sugar and milk sugar. The common practice of starving the patients, especially the abdominal cases, before operation reduces the glycogen in the blood and makes them favorable subjects for acidosis. Consequently for many years it has been our practice to fill up these people with glucose solution for twenty-four hours before operation instead of starving them. In addition, the patient gets a half pint of boiled water containing an ounce or more of sugar. Then every hour the patient has a glass of warm water containing an ounce or two of malt sugar. This not only supplies the body with carbohydrates, but supplies the body with the liquids that will be lost by the anesthetic.

Another thing is local anesthetic. In the abdominal cases we find that the tendency of the reflexes of the abdominal muscles is to very brisk. This can be greatly obviated by giving just beneath the peritoneum, just through the skin or even through the muscle and just beneath the peritoneum. In that way less anesthetic is required and the acidity is reduced.

Another point which is most important of all is the relation of the breathing of the patient. Deep breathing is most important. Short breathing increases the danger of asphyxia. If the patient gets blue in the face it is because he has asphyxia. If we would permit the patient to breathe deeply much of the asphyxia would be eliminated. A method which I have used is a compress of ice water covering the chest. When this is applied the patient at once takes a deep breath. You found that out when you went in swimming as a boy. You cannot put your hand in cold water without taking a deep breath. This reflex action will cause you to take a deep breath. What you want when you get a patient under an anesthetic is to give him more gas. Increase the percentage of gas and you cut down the oxygen, but you get more gas without reducing the percentage of oxygen by the cold compress and in that way you keep the patient breathing deeply. Leave the compress on five minutes, then

take it off and rub them briskly. This rubbing is important because the nerves will become interrupted and the skin must be rubbed with a dry towel so as to procure a reaction. We find that by adopting these different courses that we have no trouble with the gas. We use gas oxygen anesthetic in all types of cases and the mortality is no more than with ether.

DR. C. D. BROOKS, Detroit: I think our section is to be congratulated by having such an important subject brought up before the Surgical Section. As a rule gas is not used enough because some one has the idea that it is not as safe as some other anesthetic. As a matter of fact, if it were given a trial by a competent anesthetist we would find it was the safest anesthetic. I think the anesthetic that is considered the safest for the patient is the one to be adopted by any surgical group. We have had experience with gas oxygen for about seven years and we feel more and more convinced that it is the best and safest operation for the patient. It should be given by an expert the same as surgery should be done by an expert. Once in a while we hear some one say a patient died from gas. It is necessary to have team work in order to get the best results. A patient going into the hospital should be met by those with whom she deals later on. I think the anesthetist should be introduced to the patient by the surgeon and have a minute or two talk by herself. A few minutes' talk before the operation will satisfy the patient. First of all, the anesthetist can tell the patient there is no danger, which is true if the anesthetist is giving the anesthetic. The danger is so small it is like the danger of one going downstairs. "There is nothing to worry about, we will take care of you no matter what happens" with quiet efficiency all along the line bring that patient through the operation to a state of convalescence which you cannot do with any anesthetic except local, which is not so desirable.

DR. H. W. PLAGGEMEYER, Detroit: I think in kidney surgery particularly there is a very brilliant field to demonstrate the efficacy of nitrous oxide. You remember McNye's experiments in which he divided the dogs into three groups. To one group he gave chloroform and ether, the second local and the third nitrous oxide. In every one where he gave ether and chloroform he got a fat embolism in the glands. In this line of work I think you have the most striking field for the use of nitrous oxide accompanied by morphin. We do not have the same effect experimentally that we have with ether and chloroform.

MEDICAL MANAGEMENT FOLLOWING GASTRO-INTESTINAL SURGERY*

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In the past we have had much acrimonious discussion concerning the relative value of medical or surgical treatment of many gastro-intestinal conditions and particularly of gastric and duodenal ulcer, but I believe that among thinking medical men, there is agreement that both proponents are in a measure right, and in a measure wrong. We are agreed that all gastro-intestinal conditions should first be investigated by the internist who should, if pos-

sible, determine the diagnosis and by various functional tests attempt to determine the extent and seriousness of the lesion. At this point, in many cases, it is desirable that there be a reasonable consultation between the internist and surgeon to determine if medical or surgical treatment should be instituted, for it must now be an accepted fact that not all peptic ulcers require gastro-enterostomy or excision nor is it advisable to remove or surgically drain every case of cholecystitis. The surgeon is no longer willing to operate on a peptic ulcer of comparatively short history which has not had the benefit of proper medical treatment; and on the other hand the internist does not wish to treat medically the patient who shows definite evidence of organic obstruction at the pylorus, or perhaps has indefinite gastric symptoms which there is good reason to believe is caused by an infected gall bladder. This better co-operation between medicine and surgery has, I am sure, been of the greatest value in obtaining far more satisfactory results than was possible during the period of more arbitrary decision. There is, however, still something to be desired in the way of team work if we are to do ourselves and our patients full justice.

After very few surgical procedures upon the gastro-intestinal tract can we hope for complete restoration of the normal function. Perhaps in an early operated acute appendix there is relatively little change from the normal function, but even here there may be adhesions formed which are not entirely innocuous and which may give rise to some digestive disturbances. Certainly no one will argue that any surgical procedure for peptic ulcer will allow the digestive load to be as ably handled as by a normal stomach and small bowel. Both surgeons and internists have felt that there was still much to be desired in this class of surgery. Bastedo(1) reports that in his practice, ulcer cases that have had one or more operations come for treatment almost as frequently as ulcer cases which have not been operated, while Davis(2) of Omaha states that 15 to 40 per cent of operations done for gastric ulcers are failures.

It is hardly conceivable that the damage done by an old cholecystitis is entirely eradicated by either drainage or excision. Graham(3) has shown that hepatitis is a constant accompaniment of cholecystitis and varying degrees of pancreatitis are a rather common complication of cholecystitis. Even as regards the gall bladder and large bile ducts recurrence is frequent. Deaver(4) in 1920 reported 800 cases, of which $8\frac{1}{2}$ per cent were reoperative cases, several of which were tertiary operations.

In that type of chronic appendicitis which produces reflex gastric symptoms, often simu-

*Michigan State Medical Society, Flint, Mich., June 9th, 1922.

lating rather closely the syndrome of peptic ulcer, we have a particularly refractory type of trouble. It would seem that we have had for so long an upsetting of the reflex mechanism of the stomach that the removal of the original offending agent does not entirely alleviate the insult done to the intricate mechanism involved.

In resection of the small bowel there is often at least temporarily distressing digestive disturbances and this is much more true in resection of the stomach for suspected carcinoma. There are, of course, other examples of the less common operative procedures on the abdomen in which results short of normal are the best we can hope for, but those enumerated constituted the bulk of our problems.

I would not, however, wish to convey the impression that surgery is unsatisfactory or undesirable in many gastro-intestinal conditions. In far the greater proportion of cases the failure to obtain a normal gastro-intestinal tract is due to the underlying pathological process and not to surgical errors. If one had a badly shattered femur he would not refuse surgery because he might ultimately have a somewhat shortened leg, but would rather wish such measures taken as would aid in most nearly approximating its former usefulness. Similarly, we must use surgical measures when indicated and supplement them with such medical treatment as will be most useful in securing the desired result.

Why then should not all such patients be returned to the internist who has made a study of dietetics and medical management of digestive disorders, so that he may again test their digestive function and advise intelligently after this has been determined? The surgeon, as a rule has neither the time or inclination to do such work, nor should he be expected to have. We are, however, justified in asking that he turn the problem over to one who is capable of doing so. If the patient has not previously been seen by the medical man, it is even more important that he should be taken over and by one familiar with such investigations.

Perhaps in no other class of patients is post-operative medical supervision quite so necessary as after the various operative procedures for peptic ulcer. No hard and fast rules can be laid down for their managements, as many factors enter into the decisions in these cases. The type of operation which was chosen, the previous history of the trouble, the social and economic status of the patient and his temperament must all be considered before you can intelligently advise. Among many good surgeons gastro-enterostomy, either with or without excision, will often be the operation of choice. If it is not advisable to excise, there will still be the ulcer to consider. It has been repeatedly

shown that there is a strong tendency for at least a part of the food to be emptied through the pylorus. Even if excision has been possible, the tendency to recurrence must be guarded against. In every case re-examination by the X-ray is desirable to determine how well the new opening is functioning and if there is gastric retention or pylorospasm. Gastric analysis should be repeated to determine if hyperacidity is still present, for Sippy(5) has pretty well proven that hydrochloric acid is a serious hindrance in the healing of ulcer and the emptying of highly acid poorly prepared chyme into a portion of the bowel not fitted by nature to receive it can surely be thought of as at least a strongly contributing factor in the causation of jejunal ulcer. If hyperacidity is shown to exist it should be controlled by the careful use of alkalis and by withholding from the diet such food as will provoke excessive acid secretion. We can not hope for the best ultimate result if the patient is turned loose after a few weeks with the advice that he can eat anything he wishes. It is usually advisable that for a number of weeks after release from the hospital the patient be given three small meals a day with one or two milk and cream feeding between meals. The meals should consist of bland, easily digested food, such as breakfast cereals, poached or coddled eggs, custards, pudding, strained vegetable soups, and some bread. The use of alkalis depend on whether or not there is any considerable amount of acid. Its use must be checked by the use of the stomach tube and should not be dispensed with too soon. At the end of six or eight weeks the diet can be gradually increased ultimately, including nearly all foods except those that are fried; the coarser vegetables and very acid fruits. The meals, however, should not be large, rarely exceeding ten or fifteen ounces in amount.

Often, after all seems well following some mental, physical, or dietary indiscretion, the patient will have a distressing return of his old symptoms, but investigation will show only an irritable stomach with spasm and increased peristalsis. A few weeks of the previous treatment, with small doses of atropin, will again put them on their feet. These patients do much better if they will occasionally come back for re-examination and advice. It should be strongly impressed upon all ulcer cases that medical supervision is as important as though they had nephritis or diabetes, and that ulcer is essentially a chronic disease with a tendency to recurrence. If this is not made very clear and emphatic they will drift out of your control, forget your orders as to diet, and overtax their imperfect digestive apparatus. Eventually, in most cases they will again get in trouble and

perhaps drift into other hands, feeling that their surgery was improperly done.

Medical treatment following the removal of certain types of chronic appendix is, I believe, of scarcely less importance than in peptic ulcer. We must admit that in the past the results have been far from satisfactory. So much so in fact that among certain men the operation has had a bad repute, which it did not deserve. As the distressing symptoms of chronic appendicitis with gastric symptoms are usually due to reflex hyperacidity and pylorospasm, the plan of treatment adopted for ulcer can be used in a modified form with gratifying results. It is hardly necessary to insist on so strict a diet, nor is it necessary to continue the regime so long. After six to twelve months supervision we can expect in a large percentage of cases reasonably good recovery, though there will probably be a higher percentage of failures than in carefully supervised ulcer cases. Here too, the patient should be told that his digestive organs will not stand the insults that can be put upon a normal stomach and bowel. In these types of cases there is apt to be an obstinate constipation which must be considered. This can often be helped by the rather liberal use of calcined magnesia in the alkali therapy and by the more rapid resumption of a coarse residue-leaving diet. Liquid petrolatum may be used, but, if possible, keep away from the more drastic laxatives and insist on regular habits of bowel movements, as the permanent relief of the constipation is essential if the patient is to become free from digestive disturbances.

After gall bladder surgery a survey of the patient's digestive ability should be made and the extent of the damage done the liver and pancreas determined if possible. If practical, a careful study of the pancreatic ferments and bile should be made. When this is impossible, a careful clinical study and stool examination will give us much of the desired information. On this basis his diet and medication can be ordered. It is rather customary to advise a limitation of fats, but this is only necessary if the stools show fat indigestion. It is even more necessary that we be assured that there continue to be a free evacuation of bile and this can be fairly well determined with our present methods of trans-duodenal drainage. When this is found deficient it can often be aided by such methods. I feel that perhaps eventually this rather popular procedure will find a more useful field in postoperative treatment than in preoperative diagnosis. Often after cholecystectomy diarrhoea is a troublesome symptom, due to the flow of bile through the post-digestive stage and may require the use of such drugs as tanalbin or catechu. In such cases the use of non-residue leaving foods is desir-

able. If there is reason to believe that there has been an extensive pancreatitis the diet should be so arranged so not to put too great a strain on the carbohydrate tolerance.

In such procedures as resection of the stomach or bowel for malignancy, obstruction or mesenteric thrombosis the problem is largely individualistic and any general suggestions are of little value. It can only be urged that such patients be carefully studied and the amount of work that their altered digestive tract can handle be determined.

It is, of course, hardly necessary to add that every patient with a gastro-intestinal complaint should be investigated for any foci of infection and where found they should be removed. This is very important from the standpoint of recurrence, both because of the general lowering of resistance and because of the possibility of direct embolic action. The renal cardiac and circulatory symptoms should be put in the most efficient condition and the environment of the patient made as happy as possible. The social service worker or community nurse can often be of aid in this way, as the poorer patient may be unable to follow your advice or to obtain the proper diet because of home conditions or because of his occupation. When this is true, it is to the advantage of the State that he be aided in carrying out such orders.

In this paper I have not attempted to lay down any rigid regime for these conditions, as every patient is a problem in himself and I do not believe we can all obtain the same results with the same methods. It is rather my wish to impress upon you that the medical man still has a responsibility in the ultimate care of all gastro-intestinal surgical cases; and that if such patients are turned adrift without supervision following their operation we can expect that a considerable number will not obtain the degree of benefit to which they are entitled. As a result efficient diagnosis and surgery will be unjustly criticized because we do not complete our work.

DISCUSSION

DR. FRANK J. SLADEN, Detroit: This is a paper after my own heart. I have been deeply impressed with the views expressed by the essayist on this subject, and I only wish more surgeons could have been present to listen to it. The internist and surgeon are not as closely related in the after-management of operative cases as they should be. A patient may undergo an operation for the removal of the appendix or an operation on some other part of the gastrointestinal tract for the relief of a group of symptoms he had previous to operation, and yet after operation, largely due to improper aftercare or management or neglect, that patient for a long time may complain of disturbances sufficient to cause him to seek further relief either at the hands of the surgeon or the internist. These cases after operation should be referred to their family physician for postoperative care and treatment, but usually they are not. The internist and surgeon should work

hand in hand in these cases. One reason why this cannot be carried out has been pointed out by Dr. Green, namely, in the larger hospitals there is not that smoothly working organization that there should be. Such hard and fast lines are drawn between surgery and medicine, that it is hard to give patients that after-care they should receive. I feel sometimes the family physician is to blame for catering too much to the specialist, and patients after operation are not turned over to the family physician for future management as they should be. I have always had the hope that some time in the future there will be a grouping of cases according to their character, so that in this way the internist and surgeon will come more and more into intimate contact with each other and patients will get what they need as suggested in the paper.

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LATERAL SINUS THROMBOSIS*

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The aspects of this thesis which will be touched upon might well include:

First—The anatomic relation of the lateral sinus.

Second—The pathologic sequences leading to its infection and subsequent thrombosis of its contained blood-stream.

Third—Symptomatology of (a) lateral sinus phlebitis; (b) thrombosis.

Fourth—Differential diagnosis.

Fifth—Prognosis.

Sixth—Medical and surgical management.

ANATOMIC RELATIONS

That part of the temporal bone, most concerned in the events preceding and leading up to lateral sinus thrombosis, will be found to be in very intimate anatomic relationship with two of the great systemic anatomic divisions, viz: First, the vascular system, and second, the central nervous system—with the former this discussion is for the moment most concerned, and it will be seen that the tympanic cavity and mastoid process, in addition to the blood supply directly concerned with nutrition, is in close anatomic relation to major vessels of both the arterial and venous type.

Furthermore, very direct and intimate intercommunication may be demonstrated, both for

the venous and the arterial systems with the vascular network within the walls of these cavities. It is this close proximity and intimate intercommunication that furnish the physical anatomic status leading to and making probable extension of the infective processes from the temporal bone to these adjacent important vascular structures.

Inasmuch as the natural current of the blood and its serum is from the arterial system to the tympanic cavity and from the latter to the venous channels, one would naturally expect pathologic processes of a septic character to pass into the venous channels rather than into the arterial. That this is not the only way, however, is demonstrated by cases recently reported by Bowers (*Am. Society of Laryngology, Otology and Rhinology*) in which the internal carotid artery was involved through the tympanic cavity, with fatal hemorrhage.

This, however, is a rare occurrence, and far more frequently the venous channels become involved in the septic process.

The anatomic relationship of the lateral sinus with the temporal bone becomes intimate at the knee of the sinus, continues throughout the whole course of the sigmoid portion, and includes also the jugular bulb.

Throughout the whole course of the vessel covered by the above mentioned divisions the walls of the vessel lie in close proximity to the bone forming the lateral sinus groove, its walls forming the periosteum of that part of the temporal bone, and so coming into intimate vascular relationship with the blood supply of the whole mastoid process.

Thus is clearly established the anatomic vascular pathway through which may travel sepsis within the mastoid and tympanic cavity on its way to the great vascular channels involved in lateral sinus thrombosis.

The jugular bulb is in the same close anatomic relationship with the floor of the tympanic cavity.

One should not leave the anatomic phase of this subject without at least referring to the many anatomic variations both in the matter of the position of the lateral sinus groove in its relation to the mastoid cells, and also as of equal importance the variations in the cells themselves, covering the wide difference between a vastly developed mastoid of the pneumatic type, through the diploic type to one in which pneumatization has never started or has been early stayed in its progress.

These various types of mastoid structure have a distinct bearing on the probability of the incidence of this complication in a given case of acute or chronic mastoiditis. The influence of the anatomic type of the mastoid on the course of the infection is only secondary to the

*Read before Section on Ophthalmology and Otolaryngology, M. S. M. S., Flint, June, 1922.

varieties of the bacteriologic finding in these cases.

PATHOLOGIC SEQUENCES

In every case of infection of the mucous membrane lining the tympanic cavity, the mastoid antrum and adjacent mastoid cells are more or less involved. As the process proceeds, the underlying bone becomes involved, and then to a simple mucous membrane infection is added an infective osteitis, which if not controlled by natural processes or relieved by medical or surgical procedures, progresses over an ever widening and deepening area, until finally the internal surfaces of the inner plate are involved and the way has been blazed for extra temporal bone complications of various types.

There are different ways in which this extension may take place, and they should be clearly understood and sharply differentiated, because, according to which type is present will depend the early or late incidence of vascular intracranial complications.

(a) The septic inflammatory process may, in the first place, proceed by a rapidly widening area of involvement, without the formation of a protective process limiting the advance of the infection. In this type, there is little effort to throw up a limiting protective plastic area around the area of infection, and the process proceeds rapidly with open venous channels, which quickly carry the infection to outlying areas.

In this type, the inner surface of the bone is quickly reached without the intervening osseous area having undergone any great amount of caries or necrosis, so that an infection of the walls of the venous channels takes place without macroscopic evidence of bone destruction, furnishing the type of lateral sinus thrombosis occurring in acute tympanomastoiditis.

(b) On the other hand, there is that type of septic process characterized by the throwing up of a barrier to the progress of the infection which more or less effectually limits its onward course.

In this type, thrombosis takes place in the venules of the bone involved in the protective area, cutting off its nutrition but limiting the progress of the infection, then instead of a rapidly widening area of infection with intact bony structure, as in the former process, in this type the nutrition of the bone suffers, caries takes place and the picture of a breached internal plate, with perhaps an extradural abscess, is presented.

Many times an exposed but non-infected sinus is thus found.

Furthermore, in chronic suppurative otitis media with much caries in the mastoid, the

dura over the sinus is quite frequently found exposed and covered with granulations over a wide area, the sinus remaining healthy.

These are cases which, in the primary destructive bone processes, were of that type in which the onward progress of the infection has been stayed by the thrombosis in the venules of the bone, and the force of the infection spent on the bone tissue itself, the spread to the soft tissues further on having been checked by the venous bone thrombosis.

In such a case the status of an original acute mastoid disease is brought about by a secondary infection which now might easily extend to the vein, causing phlebitis and subsequent thrombosis of its contents.

The picture one must carry of the events leading to a thrombosis of the blood in the vessel must, in its early stages, be that of a phlebitis, an infection of the tissues making up the walls of the vein, the inner lining at first remaining intact and the contained blood passing on uninfected.

Then comes a breach in the inner lining of the vessel, a slowing of the onrushing blood at that point with the formation of a coagulum, which quickly becomes infected and, the picture of a beginning thrombosis is before us, the way opened for the general bacteremia which gives the characteristic symptoms so universally accepted and recognized.

The coagulum which is now infected, gradually grows and spreads until a mural clot is formed, and as long as blood finds its way past the clot to continue into the general circulation the characteristic symptoms may continue, the onrushing blood detaching particles of the infected clot. When, however, the whole lumen of the vessel is occluded by a solid clot, these symptoms may not again recur until such time as the clot again undergoes liquefaction and is once more thrown into the general circulation.

One hears sometimes of an uninfected thrombosis, which condition is open to some doubt, in view of the experiments made by Dr. Angus McLean, many years ago, in which he showed that a breach of the inner wall of a vein, even accompanied by the introduction of a current staying substance into the current of blood flowing through the vein, was not followed by clotting of the mobile blood in the vessel, so long as the area was sterile and free from infection.

It must not be forgotten that a sinus thrombosis may occur at various points in the course of the vessel, the most usual being through the mastoid, in which the favorite place for it to have its inception is at the knee, or just below it—the next most common place being farther along the course of the sigmoid, above the bulb, but on the other hand the route may not be

through the mastoid at all, but through the floor of the tympanic cavity directly into the jugular bulb. Dehiscence in the tympanic floor would favor such a course, and it is furthermore more likely to occur in children than in adults.

SYMPTOMATOLOGY

(a) *Lateral Sinus Phlebitis*. When an infection of the air spaces in the temporal bone is progressing favorably, the establishing of free drainage through a perforation of the tympanic membrane is followed by an immediate and permanent improvement in all the symptoms; pain ceases, tenderness becomes less or disappears, fever is absent or not over 99 or 100, pulse but little elevated, the patient feels well, and the tongue is not coated, the blood picture is but little changed from the normal. When phlebitis takes place, the above is reversed in a moderate degree, and frequently an undue tenderness is found at the angle of the jaw and there may also be found at the point a few enlarged glands. However, the patient does not seem very ill, and an exact diagnosis cannot be made, but merely suspected.

The tenderness at the angle of the jaw and enlarged glands are things very difficult of exact demonstration, especially in a sick, fretful and violently objecting child. Nevertheless, one must always suspect such a condition under the above mentioned symptomatology, and early radical surgical intervention, which should include free drum incision and complete mastoid exenteration, may prevent an impending thrombosis.

(b) *Lateral Sinus Thrombosis*. The outstanding thing in many cases of lateral sinus thrombosis is that in the early days of the inception of the process the patient does not appear to be very ill, and this is true even after the characteristic symptomatology of chills, high temperature, sweats and sudden drop in the temperature to normal or below—the pyemic symptom-complex—has become established. Between the violent excursions of temperature the patient feels comparatively well.

Nevertheless, the tongue is always coated, the appetite capricious, and the blood picture shows a leucocytosis around 17000.

When to these symptoms is added a positive blood culture, the diagnosis may be said to be complete and incontrovertible. The symptomatology of lateral sinus thrombosis would be a very clear-cut and unmistakable thing if it were not for the fact that many such cases are accompanied by other intracranial lesions such as meningitis, brain abscess and extradural abscess, which many times perceptibly cloud the issue. The question of blood culture is one which, when positive, is very important, but

when negative does not mean much for the reason that in the intervals between the exacerbation the bacteriocidal properties of the blood may effectually destroy the bacteria. The most likely time for the demonstration of a positive blood culture is at the height of the temperature curve, and furthermore the nearer to the source of the infection the blood is taken the more likely it is to show a bacteremia.

DIFFERENTIAL DIAGNOSIS

It must not be forgotten that many systemic complications may elevate the temperature and pulse and give a clinical picture simulating that furnished by a lateral sinus thrombosis; thus, an obstructed tympanic drainage will simulate such a complication. Follicular tonsillitis must not be forgotten. Pneumonia must be excluded.

A situation which certainly taxes the ingenuity and resourcefulness of the auradiagnostician is presented by the necessity of telling upon which side the sinus thrombosis may lie, in a case of double tympanomastoid infection with clean cut sinus thrombosis symptomatology either before or after a double mastoid operation has been done. The following considerations are offered as being of value in rightly interpreting this puzzling situation.

(a) Anatomically the right sinus is so situated in relation to the mastoid cells as to render it more liable to infection than the left in the proportion of 3 to 2.

(b) The time of incidence of the original infection has some weight, the older the process the more likely the complication.

(c) X-ray findings, showing variation in type of anatomic development of the two sides, the position of the lateral sinus and the extent of the mastoid cell disintegration.

(d) The difference of tenderness and gland involvement at the angle of the jaw, of but little value in children.

(e) When the sinus is completely occluded, compression of the jugular vein on the opposite side will cause increased fullness of the ventral veins as observed by the ophthalmoscope; of value only when the sinus is completely occluded, and then not easy of demonstration.

(f) The character and extent of the bony sepsis as observed at the time of the original double mastoid operation.

All of the above considerations may yet, and indeed frequently do, leave one still in doubt, and one must resort to

(g) Exposure of both lateral sinus from above the knee to as near the bulb as one can get, and through a critical examination of each vessel by touch one can see in the walls or on them—by palpation—by obstruction of the

flow high up and subsequently refilling or not of the vessel when the pressure is released.

(h) A procedure suggested to the writer by Professor R. B. Canfield, of the University of Michigan, as follows: After thorough exposure of both vessels as above, a sterile hollow needle attached to a syringe is introduced through the walls of the sinus as low down as possible and the point pushed into the jugular bulb; the contents are then withdrawn into the syringe and the product from each side examined and compared.

The correct diagnosis of which side harbors the thrombosis is, of course, of the very highest importance, because one side only may be operated, and if that be the wrong one the mistake is irreparable.

(i) The former ear history of the case is extremely important, because, other things being equal, the side which has formerly been infected once or many times, or is the seat of a chronic suppurative otitis media, is far more likely to furnish a lateral sinus thrombosis than one infected for the first time.

In this communication I purpose making two brief case reports, only because they both bear upon this important, interesting, and ever puzzling situation.

CASE I

B. H., a female child, age 6, developed a double tympanic abscess first in right ear, and 36 hours later in left. Both ears received early aid from drum incisions, and active medicinal treatment. Both mastoids went on to the second degree, and a double thorough simple mastoid operation was done fifteen days after the original tympanic infection. History free of former ear disease.

The temperature which, previous to the double mastoid operation, was high and capricious, was not influenced favorably by the surgical procedure.

A diagnosis of lateral sinus thrombosis was made very definitely. Upon which side was the thrombosis? This interesting question was solved correctly only when both sinus were completely exposed. In the wall of the left sinus was found a yellow spot which looked like pus in the wall of the vein. However, when the right one was likewise exposed, a far more advanced pathology was revealed. A large area of the wall of the sinus was found indurated and covered by a well-developed gramimomata one-half inch in extent.

This side was selected on the basis of the more advanced macroscopic pathology presented, the jugular tied, sinus packed, off and operated. The recovery, from this on, was uninterrupted.

CASE II

Need not be reported in detail, because it was an exact replica of Case No. 1, with, however, this very important difference. The history of the case showed that the child, 18 months before, had had a right sided tympano-mastoid infection following scarlet fever, which had passed on into a chronic suppurative otitis media. Both sinus were exposed and the right one selected for jugular ligation and excision of the sinus contents. Again the recovery was prompt, and complete.

Gastro-intestinal disturbances in children frequently bring about a similar train of symptoms. A septic thrombosis of some other venous channel in the body would give a closely allied symptomatology, and one of the most puzzling complications, especially in children, is pyelitis, which furnishes just

such temperature and pulse excursion as are found in sinus thrombosis.

However, every one and all of these conditions are capable of being differentiated definitely, especially with the aid of an internist and pediatrician. This, however, I have to say—that as one swallow, or even two, does not make a summer, so one or even two violent excursions of temperature do not establish a diagnosis of lateral sinus thrombosis, and one should feel that it is a condition which does not demand precipitate action, but furnishes plenty of time for careful, thoughtful investigation and painstaking differential diagnosis.

PROGNOSIS

Of all the intracranial complications, save extradural abscess, sinus thrombosis, early recognized and dealt with in a comprehensive surgical fashion, offers the best possible prognosis.

Dench, from his statistics, has a mortality following the operation of 28 per cent, but states that many of those cases died from complicating diseases such as meningitis and brain abscess. So one might safely say that in uncomplicated cases, dealt with early and thoroughly, the mortality would be a very creditable chapter in surgery.

MEDICAL AND SURGICAL TREATMENT

But little time need be consumed in discussing the treatment of lateral sinus thrombosis for, once the diagnosis is established, the management of the local situation is a purely surgical problem as far as the sinus thrombosis is concerned.

The sinus must be widely and thoroughly exposed above and beyond the thrombosed area and below as near the bulb as may be, packed off and thoroughly opened.

So far, all may be said to be agreed, but the same unanimity of opinion is not found when one searches for the attitude of aural surgeon upon the management of the jugular vein in the neck.

My own opinion, based upon a fairly long and what might be said to be a reasonably wide experience, is that by all means the jugular vein should be ligated in the neck and resected above the facial vein, and that it should be done as the initial procedure in the operative technic, and before the sinus is opened, but after it is exposed.

In my cases, the prompt, complete and satisfactory recoveries have followed this technic.

Cases of pyemia following simple opening of the sinus and turning out of the clot, without dealing with the jugular, have been my experience.

Some very few cases of undoubted lateral sinus thrombosis have recovered without surgical interference, in which cases my impression is that benefit has followed the heroic use of streptolitic serum, but such experiences are so woefully few that they should not be allowed to

cloud the issue, which should always be viewed as a purely surgical proposition.

DISCUSSION

DR EMIL AMBERG, Detroit: Doctor Campbell's precise statements give a vivid picture of the pathological conditions found in sinus thrombosis. Sometimes the diagnosis is easy. If we have before us an obstructing thrombus when the sinus is laid bare, there cannot be much doubt about the diagnosis. If there is only a parietal thrombus, the diagnosis by sight may be difficult. The blood count is of assistance. It must be considered from the standpoint of differential diagnosis that in certain types of meningitis the blood count shows a much larger number of leucocytes than are found in sinus thrombosis. As the essayist mentioned, a positive blood culture is of help. The same patient at different times may show absence or presence of microbes in the blood. The character of the temperature, septic or pyemic (Doctor Blake called the latter "Church-steeple" temperature), the occurrence of chills, headache, a peculiar mentality, changes in the fundus of the eye, oedema in the region of the emissary vein, tenderness on pressure along the jugular vein, the cordlike resistance on touch, etc., all these are helpful diagnostic signs. Considering chills and temperature, I should like to call attention to the well-known fact that a perisinous abscess may show these clinical signs. Politzer mentions this.

The question whether and when the jugular and contributory veins should be tied, or whether the vein should be excised, is a very serious one, which is not by any means solved for cases of all types. There may be changes which leave little doubt about the necessity of tying the vein. Some go so far as ligating the jugular vein immediately after the lateral sinus has been injured during an operation by a contaminated instrument. The good results compared with the fatal results which have occurred in a certain hospital have made procedure a rule in that place. On the other hand, many a time a sinus is injured and no bad results follow. I think a free hemorrhage may suggest expectant treatment. It may be well to change to clean instruments in the neighborhood of the sinus.

It has been claimed that a sudden infection finds the body less resistant than a slowly progressing process. This seems to be especially true in meningitis according to Dyer. The latter also claims that in sinus thrombosis it is very important to consider that pus under pressure is followed by bad consequences. Some claim good results by simply tying the jugular vein, even if a thrombus is present; others have seen bad results following this procedure.

Thus we see that much work must be done in order to come to a clear understanding of the situation. The ligation of the internal jugular vein is not entirely free of danger.

Heine's views on the subject matter are very illuminating. He mentions a case in which he thinks that ligation of the jugular may have caused the propagation of the thrombus into the inferior petrosal sinus. He states that danger to life can be caused by sudden stasis in connection with the defective outflow through the vein. He says that Rohrbach reported a case in which the left internal jugular was ligated on account of carcinomatous glands in the neck. The patient did not regain consciousness after the operation, and died on the sixth day. The postmortem revealed a necrosis of the brain caused by stasis on account of an abnormal narrowness of the transverse sinus and internal jugular vein on the healthy side. I show you a specimen taken from the cadaver which illustrates a similar condition, and which I described in the New York Medical Journal, September 9, 1905.

The attempt has been made to attribute psychopathic conditions to the unilateral narrowing of the jugular foramen. Kasloff found in 21 skulls of patients suffering from suicidal mania these narrowings more or less developed. Rickets and asymmetry of the skull must be taken into account. If the vein is abnormally wide Linser claims that the parietal suture should be done. The ligatures

should be made as far as possible from the base of the skull. The bandage should not compress the mastoid emissary. This of course refers to general surgical patients.

To summarize, it can readily be seen that sinus thrombosis is a serious condition which does not allow much delay of surgical interference, especially. Chills, pyemic or septic temperature before or after a mastoid operation deserve closest attention. The Roentgen ray may be useful in differentiating a sinus thrombosis from a central pneumonia. Typical cases are not very difficult to be diagnoses; a typical cases require great diagnostic efforts. In simple cases the prognosis after surgical interference, which is the only treatment, is, as the essayist has reported, rather favorable; whereas in cases accompanied by complications it is of course less favorable. The ligation of the internal jugular vein and one or the other of its branches is a procedure which is generally followed at present. The omission of this procedure requires well defined reasons. Surgical interference with the jugular bulb is gradually becoming more employed. It may be useful to know that the most prominent portion of the lateral sinus, in adults may be more easily found by following the lateral sinus line.

DR. A. E. BERNSTEIN, Detroit: I do not doubt that there are certain cases which require ligation of the jugular and exenteration of the sigmoid sinus, but I do not believe that the indications for doing that are as clear cut as we have been led to believe. That may seem absolutely heretical to most of us, and especially those who have had training in the Berlin school and have followed the work of Whitmer and those men in New York. As justification for saying that I know that most of the jugular ligations that have been done were done prior to the last ten or twelve years. I have had some mastoid work to do in my time. In the last ten years I had three deaths out of the number of mastoid operations I have done. One case (in which Doctor Amberg was associated with me) was a meningitis after a mastoid operation, and there was no indication of sinus thrombosis.

In talking to Doctor Bloodgood several years ago, he said, "You otologists have a way of going in and ligating the jugular for thrombosis which does not seem to me clear cut. We frequently have thrombosis of the saphenous vein following abdominal operations, in which case we do not interfere with the saphenous vein, and the patients get well."

On the other hand, I have had cases—I had one case within two years, in which after opening the mastoid I found the sigmoid sinus almost bare—the sigmoid filled with pus, and it looked to me as if I must go in and tie the jugular. I did not do it because the patient came in at a late hour and was weak, so we decided to postpone it. That seemed the most clear cut case I had, except one five or six years prior. The girl, 14 years of age, got along very well the next day, but three days afterward began to complain of pain in her joints. I thought this was thrombosis and sepsis, but she got perfectly well without any further interference.

When you have a closed off thrombus in the sinus it seems to me there is no reason for surgical interference, because you are going to do again lower down what Nature has already done for you. She has walled off the infection as well as she can, and when you tie the jugular you simply make a thrombus lower down.

DR. ROY B. CANFIELD, Ann Arbor: I would like to discuss one point in Doctor Campbell's paper, and that is the handling of the jugular vein. There are two schools in respect to this question—the Boston school that does the ligation and stops there, and the other school which advocates a radical resection of the vein. Cutting out all the "bunk" and attempting to discuss the question intelligently, we have the matter of setting this patient free from the certain dangers of pyemia, and we are seeking for a proper and conservative method of bringing about that result, which seems to me to be the Alexander method. He ligates the vein at as low a level as seems worth while, ligates a section of the vein, turns up the lower end of the upper fragment to the skin where he sews it. Then he inserts a wick of gauze into the vein, the ligation holding the gauze

in place. At the end of three or four days you can thoroughly syringe through the vein and remove the mass of infected blood. You then have the whole thing where you can handle it easily.

The great trouble is that so many otologists who do not do much of this kind of surgery, when confronted with a case with serious complications, try to do something and do not quite finish it, and the patient dies of pyemia. It is a simple problem with this old Alexander method. The incision is short, the scar is insignificant, and a radical resection is not necessary, because even with the most radical resection there is left a segment of the old sinus, the lower end of the upper fragment of the vein which is not reached, and which sooner or later begins to suppurate into the neck, and probably gets well by the sterilization of the cavity.

CONSERVATION OF THE SAC IN DACHRYOCYSTITIS*

CHAS. H. BAKER, M. D.

BAY CITY, MICH.

In the treatment of disorders of any organ of the body, that method is best which accomplishes a cure with the least possible disturbance of the organ and its function.

In the treatment of dachryocystitis, some of us, in the search for novelty, if not notoriety, seem to have departed a considerable way from this sound surgical rule.

It is my purpose to call attention to an older method with some refinements of technic which in my hands has produced results most nearly in accord with the rule just cited.

Dachryocystitis is a catarrhal disease of the lachrymal sac, varying in severity from an accumulation of tears and mucus, which can be pressed down into the nose or back into the conjunctival sac, up to an impervious stricture with a violent phlegmonous inflammation with true abscess formation.

The milder forms may yield to simple treatment but, if these are not successful, surgical measures must be used and their choice will depend somewhat on the existing type of the disorder.

That the disease has been considered an important one among eye disorders is shown by the fact that Galen, as early as the third century, proposed breaking through the lachrymal bone, keeping the opening patent with caustics to cure a weeping eye.

Celsus, over eighteen hundred years ago, recommended the treatment of lachrymal fistula by cauterizing down to the bone.

Extirpation of the sac was mentioned by

Platner in 1724; Rosas in 1850; later by Alt and DeWecker.

Berlin brought it forward in 1868, and since then many kinds of operations have been recommended.

Etiologically the disease is of bacterial origin with probably a majority of writers locating the source of infection in the nasal chambers.

Personally, I think the weight of argument is against the origin being most often from below, but rather from above, for the following reasons.

In favor of germs entering from above are first; capillary action which draws fluids from the conjunctival sac; second, the pumping action on the canaliculi by the tensor and orbicularis muscles; third, the action of gravity, all being assisted by the valves, at the top and bottom of the ductus, with an extra valve, frequently, between them for good measure. These valves are placed where they oppose movement of fluid from below upward; fourth, the downward current of fluid is assisted by the ciliated epithelium which is found in the ductus; fifth, the location of the lower end of the ductus is unfavorable for penetration from below; and sixth, there exist so much greater numbers of diseased noses, without lachrymal infection than with, as to indicate a decided resistance to infection by this route.

The most frequently occurring infecting organisms are the pneumococci, then streptococci, next staphylococci, and then any of the pathogenic organisms beside, which may be found in the conjunctival sac.

Colon bacilli, bacillus influenzae and Friedlaender's bacillus usually accompany cases in which they are found also in the nose.

Stricture is most often found in the part of the bony canal, at the bottom, which is entirely surrounded by bone, and which we often fail to remember is only about a quarter of an inch long.

We frequently get the sensation of a stricture, when passing the probe, just as it leaves the bottom of the sac and enters the ductus, which is caused by a fold of the membrane or by the physiological placement of the duct at one side and above the bottom of the sac.

Treatment of this disease has followed three lines, namely, probing, extirpation of the sac,

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and diversion of its outlet through the wall of the nose. Following Bowman, men for years tried to cure these cases, without division of the canaliculus, with probes whose size was limited to what would pass through the punctum. A few mild cases recovered by this method but they were mostly those which would get well in time with very mild astringents.

Failure from the small probes led to the introduction and wearing stylets of lead wire or hollow cannulae of silver or gold, neither of which were satisfactory to the patient and only enabled the doctor to get rid of a patient he had grown tired of seeing about his office.

Theobald advocated the use of much larger probes requiring for their introduction the preliminary slitting of the canaliculus. These were an improvement, but something was still lacking in technic.

The presence of an infected sac is a constant source of danger to the eye, and is particularly dangerous to the wounds of a cataract or iridectomy, so that any measure which would insure disinfection was welcome.

Extirpation of the sac was hailed with enthusiasm and practiced so widely that its drawbacks were soon manifest.

Indications for removal of the sac generally accepted are, first, unwillingness or inability of the patient to submit to a course of probing which may fail in the end, second; evidence of recurrent attacks of dachryocystitis; third, necessity of some operation requiring opening of the globe; fourth, persistent, resistant corneal ulcer; fifth, failure to cure by long probing.

If the advocates of extirpation who claim 90 per cent cures could show the patients with as good average results as an equal series of properly managed probe cases can show, there would be no chance for argument, but unfortunately the picture is not so rosy.

Extirpation leaves all patients with eyes which weep when in the cold and wind, and some of them are so constantly annoyed as to render removal of the lachrymal gland necessary, and this leaves them with an eye which frequently lacks sufficient moisture for physiological needs.

These people have watery eyes at all times, are continually annoyed by the tears which

overflow the lid, excoriate the skin and cause more discomfort than did their previous blennorrhoea.

Failure to destroy every part of the sac, ductus and canaliculi induces continuance of the old suppurative condition so that most operators doing extirpation were glad of a suggestion which could provide drainage without the risks of failure in extirpation.

About 1904 Cirincione first practiced anastomosis of the sac into the nasal cavity by dissecting the sac and ductus free below and up to the caliculi, then boring through the nasal wall, tucked the sac through the opening.

This had the effect of draining the sac into the superior rather than the inferior meatus and when successful this is a better operation than extirpation.

The simplest measures which give equal results are always best, and I come now to the description of a method of probing which was brought to the notice of the profession at the meeting of the A. M. A. in Detroit in 1892, by Dr. Irwin of Mansfield, Ohio, which I have practiced with much satisfaction ever since.

Reasoning from analogy with urethral stricture, Dr. Irwin introduced a probe pointed knife with flexible shaft which, after slitting the canaliculus, he passed through the stricture. Then while at the bottom in the nose he rotated the knife on its shaft 90 degrees and pulled it back through the stricture without withdrawing it from the sac.

Rotating again another 90 degrees he pushed it in once more and completed the circle of 180 degrees, when he drew it out.

He next passed the largest Theobald probe which the bony canal would accommodate, commonly numbers 14 to 18 in men and 12 to 14 in women.

The large probe is passed on the second day and after that I commonly choose one size smaller and pass that daily for a week, then alternate days for the next week.

The third week I pass the probe once or twice as indicated and in fully 75 per cent of the cases this is all that will be required for the cure.

In the few remaining cases up to fully 95 per cent an occasional probing may be necessary over a longer period of time, but nothing else is necessary to a complete cure. Of the other

five per cent it may be necessary to resort to anastomosis or extirpation if for any reason suppuration of the sac persists, which in my experience has not happened in but a single case.

Having tested syringing with boric acid solution, normal saline and various antiseptic solutions, and carried a long series of cases without syringing, with equally good results, I have abandoned it as not essential.

Recently I used mercurochrome in a few cases and thought the suppuration was somewhat shortened, but the number is not large enough to be sure that it is an improvement of decided value.

When the sac is acutely inflamed and swollen so much as to make it practically impossible to enter the sac through the canaliculus, I commonly evacuate it with a narrow knife and keep the opening patent a day or two with a wick until external applications of moist heat so reduce the swelling as to make the canalicular route practicable.

After slitting the punctum I find it an advantage to rotate the knife until the cutting edge is downward and divide the ring where the two canaliculi unite with the sac.

This facilitates the passage of the stricture knife and the large probes and it will remain open with the daily probing until the case is completed.

Any complications from nasal or sinus disease will need appropriate treatment, but when you once establish bottom drainage your case of cystitis is well even if the nasal disease is not fully so.

My cases are almost all done under local anaesthesia. After instilling cocaine in the lower cul-de-sac I inject the canaliculi with cocaine, through a hypodermic syringe needle with its point broken off and rounded, which serves the double purpose of an anaesthetic and tells you whether there is stricture, because, if there is, the fluid returns through the upper punctum as fast as it enters.

After a five minute wait the slitting of the canaliculus is painless and the contents of the sac are easily evacuated upward into the conjunctival sac.

The lachrymal sac is then distended with a cocaine and sometimes adrenalin solution and a suitable wait will make the balance of the cutting and probing either painless or so nearly so that there is no difficulty in getting the patient to continue.

After the first day the pain is a vanishing quantity up to the end of the case.

On account of the variation in the size and direction of the lachrymal canal it is sometimes

difficult to pass the stricture knife, and this is especially true of small probes. The large probe is free from this danger because its blunter end will slide over a mucous fold which would catch the small probe and make a false passage almost certain to happen. A little preliminary study of the type and facial contour of your patient will greatly assist in locating and determining the direction of the passage and a very few cases will make you facile and handy in it.

In conclusion: It is far easier to induce the patient to submit to a simple procedure which bears the least resemblance to an operation, than to get him to consent to an operation, like extirpation of the sac or anastomosis, which if thorough is far from being simple or a minor operation.

Extirpation condemns the most of patients to a life of almost constant annoyance from watery eyes which may be serious enough to necessitate another formidable operation, the extirpation of the lachrymal gland, which only substitutes one disability for another, giving the patient an eye which is too dry in exchange for one that is too wet.

I feel sure that none of you who know all the advantages and disadvantages attendant on each of the kinds of treatment advocated would hesitate in selecting probing if you were the patient, and you have no right to ask your patient to take chances you would yourself reject, if your places were reversed.

Anastomosis is better than extirpation so long as the opening into the nose remains patent, but cicatricial contraction is likely to require the frequent use of a probe in which case the case is no better off than one probed through the natural channel which is classed among the partial failures.

DISCUSSION

DR. W. G. BIRD, Flint: I agree with the Doctor as far as extirpation of the sac is concerned. I always consider that operation a last resort because I do not like to have the troublesome sequelae that usually follow, and I do not like the external scar. The objection to probing is that if you use small probes they do little good, and if large probes are used it is necessary to slit the canaliculi, and the passing of the large probes usually causes considerable pain. When you slit the canaliculi you destroy the natural drainage of the lacrimal system. As I understand it, the palpebral ligament is attached to the anterior and the temporal side of the sac, and the act of winking contracts these ligaments causing the sac to dilate and at the same time causing a vacuum in the sac. The puncta feed into the internal canthus of the eye where the tears collect and suck this fluid into the sac. If the canaliculus is slit it is impossible for the process to be carried out.

I do the West operation—internal drainage operation—whenever a case presents itself that I think should be operated. It is an ideal operation in dacryocystitis because you get immediate drainage of the pus into the nose and your pain and inflam-

mation subside at once. Of course in those cases it is necessary to use a general anaesthetic. There is no more shock with this operation than the ordinary submucous resection, the patients do not object to it as much as passing a probe, and the success seems to lie in the fact that the sac is well exposed and as large a portion as possible removed. It is necessary sometimes, if you have a very narrow nasal passage, to remove the pendulous portion of the middle turbinate on one side, and sometimes to do a submucous resection of the nasal septum; but of course these cases are rare. After this operation, where there are troublesome granulations, a little nitrate of silver applied twice a week keeps these down. The main thing is to get a large enough opening so the tears will pass through, which helps to keep the opening into the nose patulous.

The best cases are those that have never been treated. My procedure is to syringe out the sac. If the fluid does not pass into the nose I pass a very small probe, a No. 3 or 4, and if this does not pass readily into the nose I suggest a nasal operation and usually get the consent of the patient.

The after treatment does not amount to anything. A few washings out with a lacrimal syringe finishes the treatment. We have no external scar, no pain, and a satisfied patient as a rule.

In cases of dacryocystitis complicated with corneal ulcer, or in cases where the eye must be opened, as in cataract, it is an ideal operation. The flow of pus is stopped at once and after a week's time you can go on and do the operation on the eyeball without fear of infection. Then the natural drainage is left intact.

DR. GEORGE M. WALDECK, Detroit: Doctor Campbell of Detroit has recently done some very nice work in the lacrimal sac, injecting bismuth paste with the idea of ascertaining the location of the structure and the size of the bony canal. This has brought out some interesting things, especially as to the variation in the anatomy of the bony canal. They then have modified the West operation to a certain extent, in that they pass a probe through in the ordinary way, a specially devised probe, one with which they can force a way through the nose. Then they enlarge the opening around the exit of the probe and with another smaller instrument catch the end of the sac and bring that into the nose. Doctor Campbell recently read a paper in which he stated that the results have been really very gratifying.

I believe we have a new field here in the treatment of the lacrimal sac, and while I do not think that we have by any means covered the ground, it is a great advance over the old extirpation.

DR. ALBERT E. BULSON, Jackson: I agree with Doctor Baker in the treatment, largely, but we must consider the different phases of this lacrimal occlusion—acute, sub-acute and chronic. With acute dacryocystitis there is usually invasion through the nose and up through the duct, and local treatment of the nose with perhaps syringing of the duct will complete a cure. But where we find a case of sub-acute dacryocystitis that has run perhaps for several months, my invariable practice is to slit the canal and put down a good-sized probe. I remember Doctor Noyes of New York said, "You have to open the door before you can go through in these cases," and that is true. First I slit the canal, and of course this is a delicate operation, requiring a good deal of care just how to slit the duct. Then I put in perhaps a No. 11 Theobald probe. Invariably you will find stenosis through the duct, but break it down. In my slitting of the canal I use a Noyes Knife to go out through the duct, then put in my probe.

The Doctor recommended probing perhaps every day for a time, or every other day, but I find in my experience that after the second probing the patients get very much discouraged, and even though you are successful and they are satisfied, they dread it and rebel against the probing. Of course I always use a local anaesthetic, but they suffer a little, so I drop from a No. 11 to a No. 5 or 6 probe and only probe about twice a week, gradually lengthening the time to once a week or once in two

weeks. I have some cases that have gone ten years, but who occasionally come in to have a probe introduced.

I think I was one of the first to advocate the removal of the gland. I remember advocating it before the Tri-Medical Society at Fort Wayne, Ind., and they thought it was a good suggestion. But I have found that you are simply making a bad matter worse. We have a dry eye, but certainly it is better for the patient to have a wet eye. So in my own personal practice I have abandoned the idea of removing the gland. I have never attempted the extirpation of the sac and have never believed in it. Therefore I rely wholly on probing. I believe it is the treatment, but remember, a large probe to start with and then taper down until you get at least to No. 3. Occasional probing will complete the cure.

DR. GEORGE E. FROTHINGHAM, Detroit: I wish to make a point that I think is rather important. Of course we have to select our cases in deciding on the operation we will do—the operation is according to conditions found. One point I have not heard mentioned that I think is rather important, and that is, in slitting the canal where do you do that operation? I have noticed a number of cases where the slit is carried along the upper margin of the lid. I think that is a mistake. The slit should be made so that when the slit is open afterward it lies against the eyeball instead of on the upper edge, and in that way you do not lose the power of suction.

DR. HAROLD WILSON, Detroit: It seems to me there are two classes of cases—those that get well and those that do not—and in our reasoning on the theory we are apt to confine our thoughts to those who get well and our judgment may be warped accordingly.

We have those who are in favor of extirpating the sac, those who are in favor of the endo-nasal operation, and those who are in favor of probing. From the fact that there is a considerable variety of endo-nasal operations to choose from it is evident that none are precisely adequate and satisfactory. From the fact that there are people who do not extirpate the sac, it is obvious that that is not the complete solution. From the fact that there are those who do not rely upon probing, it is evident that does not solve the problem entirely. So much for a logical analysis of the situation as it exists today. My conviction is that there are just as many patients who do not recover under one system of treatment as another, because each method has its own particular difficulties. Extirpation of the sac does not necessarily result in a weeping eye, and does not necessarily result in a perceptible scar. Probably those who have extirpated the sac could show many clean cases in which the scar is almost invisible.

The knife that Doctor Baker showed is very satisfactory, if one is compelled to use a knife.

I am perfectly satisfied that if an ophthalmologist had a chronic dacryocystitis and was subjected to probing two or three times a week with a No. 10 or 14, or even a No. 4, he would prefer to have the sac extirpated and take the chances on getting along very well, and when Doctor Bulson says there is not much pain he speaks largely as the man in the pulpit speaks of original sin—without much personal experience, that is, from the standpoint of the patient. It seems to me that on theoretical grounds there is no approach so satisfactory nor one from which we have better promise of excellent results, as the endo-nasal route. It is thoroughly sound anatomically, it is a comparatively easy bit of surgery, and although we are laboring under difficulties and the results are apt not to be permanent. I am well satisfied that as a matter of surgical technic, no matter whether they all get well or not, they have an easier road to get well.

DR. WALTER R. PARKER, Detroit: It seems to me that the question of whether or not the punctum should be opened depends upon whether it is normally located. If the punctum can function perfectly, it should not be incised; if it is not in its proper anatomical position then it should be incised. As the cases come to us routinely I think we can

resort to probing for a reasonable length of time. We all know there are certain cases that get well in a comparatively short time under probing. I speak now of the cases of chronic dacryocystitis in adults. If after we have probed for a reasonable length of time, perhaps a month or six weeks, and have not made any perceptible gain, then I think we have to resort to one or two procedures. When we have used a probe up to a No. 10 or 12 then I am inclined to think that the Ziegler rapid dilatation method will clear up a certain proportion of these cases. It is true it breaks the lacrimal vein, but it will clear up some cases that simple probing will not cure. Failing in this, my own preference is for extirpation of the sac. I am still old-fashioned enough to extirpate the sac. There are secreted normally about six or seven minims of tears a day. If there is no chronic conjunctivitis present the patient will not have a serious overflow of tears after the extirpation. If there is a chronic conjunctivitis they will have a troublesome epiphora in emotional periods, and of course the overflow will be on the cheek.

I hesitate to speak about the so-called internal operation. I have had no experience with it, but Doctor Martin of Harvard says it is no good. After doing a large number of cases, only a comparatively small number got along without probing, even though the window is made. In his words, it is easy enough to make the window, but almost impossible to retain it.

DR. HEMAN GRANT, Detroit: I would like to mention dacryocystitis in young children. There is a little procedure we can follow in these cases that helps somewhat. In about 75 per cent of my cases of acute and sub-acute dacryocystitis in young children, babies and infants, simple massage of the sac followed by the instillation of argyrol will make an end to the condition. The other 25 per cent which go on to a chronic condition I would like to have brought out in the final discussion.

DR. A. E. OWEN, Lansing: Like the most of the men who do eye and nose work altogether, when West came out with his paper on the internal operation, I became enthusiastic. Doctor Bird did one or two here and told me how he got along, and then I began. I have done six or seven of these cases, but I had good results in only two of them. The rest of them I have had to do the same thing the rest of you do—probe and wash out, etc. I think perhaps West can do the West operation, but I believe there are very few men who can do it. It is easy enough to talk about this thing or going in there and making a window, bringing down the lacrimal sac and making a nice operation of it so you have an open canal, but it is another story to do it, and while I thought I did it, many of mine closed up. I think the rest of you if you are honest will say you have had much the same experience. Perhaps some of you are more skilful than I am. The last few cases I have had I did the same old thing I always did—extirpate the sac.

I also think that very few extirpate the sac. You think you do, but some of the best operators I have seen agreed with me that they did not extirpate the sac. A little trick I learned a few years ago has helped me—after I think I have done a good operation I use acetic acid and do not close it.

DR. HARRY S. GRADLE, Chicago: I saw West do a good many of his cases, but I am not very keen about the operation. I tested out the Toti operation, and in about 40 per cent of cases the tear duct remained open. In Vienna we did the extirpation of the sac, but I do not believe that in 25 per cent of cases after extirpation we had a patulous canal. I think we are on the wrong tract. We are interfering with physiological function by making a new pathway which will never allow the performance of the act of drainage of the tears. We must understand the tear sac drainage first, and there is where we are not perfect. Whether it is suction that delays action, we are not sure. Whether it is capillarity, or due to some epithelial condition within the sac, we do not know, and until we do know I do not think a proper method will ever be devised. I am firmly convinced that at present we are not treating the tear sac in a way

that is conducive to physiological function. A certain number of cases will clear up under mild probing; but those that will not clear up, what are we going to do? In the first place, extirpation of the sac is the only logical procedure, because as has been shown us, we have not a smooth passage through the sac, but we have a tear sac with innumerable small diverticuli extending upward and outward, and until we can smooth up these diverticuli or eradicate them completely, we cannot clear up the condition. On the other hand, extirpation of the sac is accompanied so often by closure of the sac. What can we call a successful case—a patulous canal? No. A canal that functions. The operation that Doctor Waldeck described is very similar to the one that Drs. Weiner and Sauer of St. Louis have been doing for some time, and which is very successful for that operation. I believe Von S— started us in the right direction by the injection of barium into the sac, the X-ray showing us more or less the location of the stricture. If you do that and take stereoscopic pictures, you will get a far better picture of the anatomy of your tear sac than by any of these instruments.

I am not satisfied with my tear sac cases; I do not think I am doing them very much good. I have used the negative pole, galvanic current, but have not had satisfactory results. Of course there are certain emergencies that necessitate operation and immediate removal. But it is each one to his taste until we do find some method to restore the physiology of the tear sac.

DR. CHARLES H. BAKER, (closing): Taking the discussions in order, I want to state first that slitting the canaliculus will not necessarily interfere with the physiological function. The location of the slit has a great deal to do with the results. If your slit is made pretty far back toward the conjunctival surface rather than toward the skin surface you get apposition of the edges of the slit to the eyeball, which is the central part of its function when the punctum is intact. Furthermore, you will frequently find after slitting and a series of probings, if you do not see the patient for a few months, that the edges of the slit have reunited and the duct is practically normal.

I think those people who have had failures in probing have had these failures because of the reason Doctor Bulson mentioned. He starts with a big probe and then when the patients get discouraged he slips down to a small probe. There is the crux of the whole matter—the probing of these eyes. You must stick to the largest probe that will pass through the bony canal without damage to the membrane. In some cases with the Teutonic type of head and a very large canal, where you can pass a No. 20 Theobald probe, why go down with a No. 12 or 6? Why not stick to a No. 16 or 18? You have a membrane which is irritated and which lies in folds. There is a tendency to hypertrophy and infiltration, and if you pass a large probe you soon have that membrane squeezed dry. The tendency is then to reform a more normal condition of the lining of the canal. I do not think any man by any other method of operation can show a higher percentage of cases that do not require after-treatment than can be shown if you follow consistently the large probes.

Doctor Gradle spoke of the use of negative electricity. Years ago I tried this and it seemed to be beneficial, but the reaction in some cases was positive, and when I came to check up I found I did not get much better results. I have had some experience with the various antiseptics and astringents, but I did not seem to get any better results. The important thing is to pass a large probe and pass it frequently, every day for at least a week, and perhaps the second week, although the majority usually require it but one week, and 75 per cent of the cases will be cured by the end of the third week.

In regard to infantile cases, these cases are due to retention of secretion within the sac at the bottom, probably an imperforate membrane at the bottom, and the passing of even a small probe will cure it. Once a natural passage is made the tears will continue to pass through and the case will soon be cured.

PUBLIC HEALTH EDUCATION

The function of the Joint Committee representing the University of Michigan and the Michigan State Medical Society is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up a sound public opinion concerning questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect, or theory of medical practice. It will send out teachers, not advocates.

VIII.—PHYSICAL EXAMINATIONS (Continued)

WHAT IS A PHYSICAL EXAMINATION?

JOHN SUNDWALL, Ph. D., M. D.

Professor of Hygiene and Director of the Department of Hygiene and Public Health, University of Michigan, Ann Arbor, Mich.

To be of any value whatsoever, a physical examination must be thorough and painstaking. Furthermore, the examiner must be an expert. Not only must he be adept in determining whether organs and tissues are in order or out of order through the skillful utilization of the simple methods of physical diagnosis such as inspection, palpation, percussion and auscultation; but he must be acquainted with the numerous laboratory methods, now at our command, which aid in making and in many instances determines the diagnosis. Blood counts and blood chemistry, Wassermann, urinalysis, kidney efficiency tests, protein sensitization, bacteriological and serological methods and analysis of various bodily secretions and excretions must be utilized at one time or another in order to make the diagnosis accurate and complete. Furthermore, the physical examiner should know when the X-ray, the electrocardiograph, the polygraph and basal metabolism determinations are of service in determining man's physical condition. Of course, it is not expected that all these methods and instruments are to be used in every physical examination. On the contrary, certain methods will be utilized only when the general subjective and objective examination reveals or suggests beginning abnormal changes that require further study by means of precise methods in the hands of specialists. Moreover, it cannot be anticipated that the general examiner should be able to go into the laboratory and make for himself these various tests. Specially trained men are required for special methods and for utilizing special instruments. The general physical examiner should know, however, when these are required and appreciate fully that in many instances the laboratory alone can detect early regressive changes such as the degenerative group of diseases.

To be able to make an efficient physical examination from the standpoint of preventive medicine and to be able to detect early beginning retrogressive changes, require on the part of the examiner un-

usual scientific training and experience. In fact there is no other branch or phase of medicine that demands so thorough and so broad training. Medical schools should give this specialty—physical examinations for health and physical efficiency—an important part in the curriculum, for it promises to be a most important phase of future medical practice.

But the physical examination is only the beginning of a program for the individual health promotion. The findings must be interpreted to the individual in such a way that there will be, on his part, a lucid understanding of and a deep appreciation for the prevention of retrogressive changes or the correction of beginning abnormal alterations.

Furthermore, records must be kept of these examinations. The findings of each successive examination should be appended to the records of previous examinations. In other words, a continuous health record beginning with childhood should be the priceless possession of each individual. During the school age, this record should accompany the scholastic record from kindergarten to the university.

Just what should be included in the standard physical examination is best stated by quoting from the Life Extension Institute, which has done far more than any other life saving agency to develop the "preventive medicine" features of physical examinations.

"The Standard Examination is the foundation of the survey and determines the need for special research beyond the usual routine of the Unlimited Service. The Standard Examination and Service cover the following features:

"(1) Examination of the Eyes, Ears, Nose, Throat, Mouth, Teeth, Lungs, Heart, Circulation, Blood Pressure, Skin, Glands, Stomach and Abdominal Organs, and general bodily conditions, chemic and microscopic examinations of the urine, Hemoglobin blood test for anemia. (Other special details are covered in the examination of women and children.)

"(2) A study and review by our Medical Staff of the daily living habits, personal and family history, activities, past illnesses, and any other information as to physical condition and health problems which the subscriber may care to submit to us for consideration in connection with the physical examination.

"(3) Four urine examinations a year, chemic and microscopic. The Institute will send special containers for these urine specimens.

"(4) Confidential detailed reports following a careful study and review by the Institute's Reviewing Staff of all the papers assembled in the case.

"(5) Suggestions for corrections of errors in personal hygiene.

"(6) Suggestions as to proper diet, with appropriate diet lists.

"(7) Instructions covering appropriate exercise, with diagrams.

"(8) Other general suggestions and hygienic guidance.

"(9) Mid-year questionnaire calling for a statement from the subscriber covering any changes that have occurred since the examination and as to the need of any additional hygienic counsel and guidance.

"(10) Educational health literature, including appropriate Keep-Well Bulletins and the Institute's monthly journal, "How to Live." These bulletins cover suggestions for healthful living and personal hygiene generally, that is, eating, drinking, sleeping, working, play, exercise, posture, fresh air, etc., and timely information regarding the care of the mind and body.

"(11) Educational Department of the Institute. Members have the privilege of communicating with this department at any time for general information relating to personal hygiene and disease prevention."

FREQUENCY OF PHYSICAL EXAMINATIONS

Just how many examinations are essential in the life time of an individual in order to assure his health and physical efficiency must vary. No fixed standards can be put down as to how often physical examinations should be made. Age, state of health, intelligence of the individual, illness and occupation are factors which should determine, in a large measure, when examinations should be repeated.

With a view of establishing an economic and scientific basis for physical examination of school children, the New York City Department of Health set out to determine the age and sex incidence of the occurrence of physical defects in school children. The purpose of the study were to determine (1) "When physical defects occur; that is, at what age they may be found for the first time. (2) How many physical examinations are necessary during the school life of the child. (3) When physical examinations are most necessary in relation to the age of the child." With a view of answering these questions, the Bureau of Child Hygiene of the Department of Health of New York City, in 1909, analyzed the physical defects found in a total of 356,292 children who had been examined. In 1921 a similar study was made of 139,770 children of age groups. The sex and age groups were 6-8 years, 8-10 years, 10-12 years, and 14 years and over. The prevalence of such common defects in school children as defective hearing, pulmonary disease, cardiac disease, nervous disease, defective nasal breathing, hypertrophied tonsils, defective vision, defective teeth and defective nutrition were tabulated for each of the age groups. The interesting summary and conclusions are as follows:

"In analyzing the results of this study in physical defects found in school children, the following points seem worthy of emphasis:

1. The less common and more chronic physical defects such as pulmonary disease, cardiac disease and nervous disease remain at about the same level

throughout school life, and are apparently influenced little if at all by the school environment.

2. Defective hearing and defective vision show a steady and persistent increase from the entering age to the leaving age throughout the school life of the child. In the case of defective hearing, however, the increase is relatively small; in the case of defective vision, the increase is more marked.

3. Malnutrition, defective nasal breathing (implying the presence of adenoids), hypertrophied tonsils or diseased tonsils and defective teeth show their highest incidence either at the entering age or at the eight to ten-year period, thereafter showing a fairly persistent and regular decline.

4. While the incidence defects in all age groups is lower in the 1921 study than in the 1909 study, the relative age incidence remains approximately the same, the percentage of defects found at each age bearing about the same relative position in both studies.

5. The physical examinations and follow-up work for school children in the years intervening between 1909 and 1921 have evidently reduced the total number of physical defects, with a resultant raising of the health standards of the children examined. They have not, however, resulted in a change in the relative age ratio of the physical defects encountered.

CONCLUSIONS

"The conclusions reached as a result of this study are:

1. The most important physical examination to be made in the school life of the child is the one occurring at the time the child enters school for the first time.

2. In order to make the work of health supervision of school children effective, a complete physical examination of each child should be made before eight to ten-year period. If this can be done with 100 per cent efficiency, combined with follow-up that is 100 per cent effective and 100 per cent of treatments obtained, it should not be necessary to make regular physical examinations after the eight to ten-year period, reliance being placed after that time upon the routine inspection of the children in the classroom. This routine inspection will permit the nurse, doctor or teacher to pick out the cases of physical defects that have been in any way overlooked during routine physical examinations or which have originated after the eight to ten-year period.

3. An annual test for defective vision is desirable.

4. Unless the amount of money appropriated for school medical inspection is large enough to allow a complete and thorough physical examination each school year, the officials in charge of such work are not justified in spending any money in having physical examinations made after the eight to ten-year period unless the full health needs of the children below that age period have been met.

5. A logical deduction that might be drawn from this study is that great emphasis should be placed hereafter upon the pre-school age period as the time when physical defects should be prevented or corrected.

6. To sum up the matter, this study would seem to show that the expenditure of time and money to make annual physical examinations of school children is not warranted and seems to be unnecessary. Analysis of the age and sex incidence of physical defects in this study shows that proper and adequate physical examinations made in the early life of the school child—that is, before the 8 or 10-year

period—are essential, and if these are properly followed up and suitable treatment obtained, the appropriations for this work will be spent in the most economical way, the child's health will be more thoroughly protected and future disease and the sequelae of physical defects be more adequately guarded against than by any of the present methods of school health supervision.

From this extensive study it is readily seen that the most important age period for making a thorough physical examination, so far as school children are concerned, is at the time that they enter school. Furthermore, we learn that with the possible exception of a marked increase of defects of vision during the school period, practically all the defects are present at the time the children enter school. Therefore, a thorough "over-going" is essential in an earlier age period of life. In fact, the first six years are the most important and there should be a series of examinations accompanying the growth of the infant, the acquisition of new functions and the development of new structures. The wise parent will see to it that the baby maintains its proper weight and growth and that the joints and bones are functioning properly when the child begins to walk. Furthermore, the mother will be concerned with the throat with a view of removing tonsils and adenoids which later on may cause the damaged heart. She will know the age periods when the temporary and permanent teeth appear and "see to it" that they are properly cared for. Each infectious disease of childhood and the convalescence therefrom will be carefully guarded by the physical examination.

To summarize then, early infancy should be characterized by a series of physical examinations accompanied by proper instructions to mothers as to prevention and correction of the defects which are so prone to make their appearance in early life. A thorough physical examination should be made of each child when it enters school and the defects should be corrected. Annual inspection of school children may well follow with particular reference to weight and growth, to posture, to the teeth and throat, to vision and to the general state of health. The annual inspections may well be made by the school nurse or the school health director.

The next age period in life when a thorough over-going should be made is during early adulthood. Let us say from 18 to 20 or 20 to 22 years of age. Universities are beginning to require of all their entering freshmen this thorough physical examination before registrations are completed. Physical examinations are of especial value to the young man and young woman beginning their life work. Just how often these should be repeated depends in the very largest measure, on the vocation pursued, the habits formed, the intelligence of the individual, and his state of health. Owing to the fact that the degenerative diseases "crawl on" so insiduously and to the fact that the vast majority of mankind are found to be possessed with defects of which they are unaware, it is a wise procedure for him who

desires to live a long, active and useful life, to insist upon an annual overhauling.

Our relationships to the competent and painstaking physician should be similar to our relationship with our dentists. The efficient dentist to whom we ascribe the guardianship of our teeth, let us say from infancy on up, would feel that he had been remiss in his obligations and in his practice providing he is compelled to substitute plates for teeth in the average person. Perhaps in the near future we shall censure our physician, to whom we have given over the wardships of our health, for the occurrence and progress of retrogressive processes which the physician could have prevented.

TOO MANY DIPHTHERIA PATIENTS DIE

Why should there be any diphtheria mortality at all? Antitoxin is to this disease what water is to fire. The answer to the question is, therefore, that the antitoxin is not given soon enough or in sufficient quantity. Fire does not spread more surely or more rapidly among combustible materials than diphtheria in the tissues of the child attacked. The one supreme necessity is to head it off—put it out. A dose of 5000 units of antitoxin may or may not suffice. This dose should be the minimum and it is far better to give 10,000 or 20,000 units in one dose than in two.

Nature is helpless in many of these cases; her defensive forces are simply overwhelmed by the poison of the disease. Give the patient a full dose, a liberal dose, of antitoxin, and as many as may be required; arrest the poisoning process; and then nature, relieved, rallies her phagocytic forces and destroys the invading bacilli.

The mortality of diphtheria in this country, according to the Parke, Davis & Co., advertisement elsewhere in this issue, is 10 per cent. One patient out of ten dies. Save the tenth child!

AMERICAN SYNTHETICS

The Fordney-McCumber Tariff Bill, recently passed by congress, unfortunately does not provide sufficient protection for American-made medicinal chemicals, nor does it compensate for the extensive research work which has been done by American chemists.

The rates on medicinal chemicals were passed over the protest of the medical profession. It is now possible for the physicians to follow up their protest by using only American-made synthetics, and referring to them, at all times, by their American names, as suggested by the Council on Pharmacy and Chemistry of the American Medical Association.

Among the important American-made medicinals which should receive the support of all American physicians, are Arsphenamine, Barbitol, Cinchophen and Procaine. Literature on these products may be obtained by writing to The Abbott Laboratories, Chicago.

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NOVEMBER, 1922

Editorials

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Bldg., Detroit, Mich.

IMPORTANT

Despite the fact that Medical Defense has been a part of the work of the Michigan State Medical Society for a dozen years and the proper procedure for the doctor threatened published many times in the State Journal, there remain many men who do not know what to do when trouble comes.

Many notify the State Secretary instead of the Chairman of the Medico-Legal Committee, some notify no one until the case is about to be tried.

One such case this year almost resulted disastrously from the fact that two doctors from the same community testified against him, for a fee. The Medico-Legal Committee is frequently able to prevent this by educating the other members of the County Society as to their duty to themselves and their co-workers.

Then too, only hasty preparation is possible for our attorneys in these late calls of distress. Another thing which men do right along is to select their own attorneys whereas the selection of local attorney rests with our general attorneys, solely, the reason being that attorneys know better the qualifications and experience of other attorneys than those outside the legal profession can.

F. B. TIBBALS,
Chairman, Medico-Legal Committee.

THE ANN ARBOR CONFERENCE

In response to the call and request for a conference regarding a proposed establishment of a new nursing school in connection with the University Hospital at Ann Arbor, the following were present at the meeting held on September 20th:

President Burton; Dr. W. T. Dodge, President of the State Society; Dr. A. L. Seeley, Chairman of the Council; Councilors McLurg, Walker, DuBois, Le Fevre, Jackson, Clancy; Chairman Hume of the Legislative Committee, Chairman Frothingham of Committee on Civic and Industrial Relations; Dean Cabot and several members of the Medical Faculty, Regent W. H. Sawyer and some fifteen committee members of our standing committees.

Dr. Parnall, Director of the University Hospital, was not present. The Council did not receive any information or word as to why Dr. Parnall was absent.

The meeting was presided over by Dr. Seeley, Chairman of the Council.

The following statement was made by Dr. Dodge, President of the State Society:

Early in July Dean Cabot informed that the Board of Regents had been solicited to establish a department of the University for training nurses independent of the Medical School, governed by a dean and equipped with a faculty of its own. He also gave me an opportunity to examine a report of a committee on Nursing Education appointed by the Rockefeller Foundation and which I shall hereafter call the Winslow Committee after its chairman. He also permitted me to read a communication from Dr. Parnall, Superintendent of the University Hospital, to the president of the University, advocating the establishment of such a department, and his own reply thereto, in opposition.

Dean Cabot stated to me that he considered this project, if adopted, would prove very damaging to the Medical School and he requested me to take steps to bring the matter to the attention of the medical profession and obtain their views thereon, also to use any influence I might have to prevent final action on the proposition by the Board of Regents until an expression of opinion from the profession could be obtained. I, accordingly, wrote to Regent Sawyer requesting delay and requested the Secretary-Editor to direct inquiries to Dr. Parnall. I have also taken up the matter with the chairman of our Committee on Civic and Industrial Relations and the chairman of the Committee on Legislation and Public Policy. At their suggestion I have arranged for this special meeting of the Council and this Conference. In addition I have presented the proposition to every meeting of medical men I have had the pleasure of attending and have approved the publications that have been made in the Journal on this subject.

I am of the opinion that the proper policy would have been to publish the argument made by Dr. Parnall in favor of establishing this new department and Dean Cabot's reply thereto. Permission for such publication could not be obtained and Dr. Parnall declined to answer the questions put to him by the Secretary-Editor. His comment was that it would be obviously improper for him to issue unauthorized statements upon official matters pending

before the Board of Regents. He had been asked to give, for publication, his own opinions only.

I wrote to President Burton asking him to permit the publication of these communications, but as shown by the letter to me from the Secretary of the University, published in the August Journal, it was very rightly decided not to trouble the President with the matter during his vacation. The Secretary, however, comments as follows: "It is my judgment that it would be highly unfortunate for Dean Cabot or Dr. Parnall to publish their views on a matter which is at present before the Board of Regents." I do not agree with this statement. In my opinion the proper time to discuss a proposition of this sort, if it cannot be done earlier, is when it is before the Board of Regents. Better it would have been to have first submitted the proposition to the faculty of the Medical School and obtained their views before its presentation to the Board of Regents. Obviously the views of Dean Cabot and Dr. Parnall are far apart. Dr. Parnall says: "That the medical profession will be injured in so doing is unthinkable." Dean Cabot says: "To introduce into this rather delicately balanced machinery another faculty—which would very properly stand upon its rights—and upon its dignity—might very easily deal a blow at the very root of medical education in this state."

In discussing this proposition at meetings of medical men I have presented to them the substance of the Winslow report and its recommendations, and the criticism I have to make on that report is partly based upon the criticism uttered by others and partly based upon my own experience in the training of nurses. The report considers the subject of nursing training purely from a pedagogical standpoint and ignores the economical considerations relating to hospitals that have made the existence of the present hospital training schools possible. It also emphasizes the necessity, in the view of the committee, of liberal financial support for all forms of nursing education. This is the only profession I believe, in which students are admitted to training without the payment of tuition charges and where room and board are furnished free of charge, and where the student is, during a portion of the course, oftentimes paid a considerable stipend for the services she renders. To reimburse the hospital for these expenditures furthering her education the student nurse is expected to assist in conducting the affairs of the hospital, to assist in keeping it clean and to assist in caring for the patients. In this way, performing these duties under close supervision, she receives, in my opinion the more important portion of her instruction. In performing these duties she is frequently called upon to perform menial tasks which in the opinion of the Winslow Committee is derogatory to the dignity of the trainee. I have known medical students to perform menial tasks in order to make a living while pursuing their medical studies. I have never known that their dignity suffered or the good opinion of their associates was lessened thereby. In my opinion the principles of cleanliness and the "aseptic conscience" can be more thoroughly built up and established in the mind of a trainee, by practical work, under proper supervision, than by didactical instruction in the class room. The Winslow Committee proposes to lessen the period devoted to a nurse's education by the following methods:

"It is fundamental to the success of nursing education that adequate funds should be available for the educational expenses of the school itself, and for the replacement of student nurses by graduate nurses and hospital help in the execution of routine duties of a non-educational character. With the necessary financial support, and under a separate board or training school committee, organized pri-

marily for educational purposes, it is possible, with completion of a high school course or its equivalent as a prerequisite, to reduce the fundamental period of hospital training to 28 months and at the same time, by eliminating unessential, non-educational routine, to organize the course along intensive and co-ordinated lines with such modifications as may be necessary for practical application; courses of this standard would be reasonably certain to attract students of high quality in increasing numbers."

It will thus be seen that the committee would upset all the present economic factors connected with the training of nurses. The teaching faculty of a training school shall be independent of the clinical staff. The hospital shall be conducted by paid employees, students shall have the use of the wards for instruction purposes, patients shall be utilized as material, but the student nurse shall not be humiliated by the requirement to perform any menial tasks. Money is required to establish such a school but it is not intimated that the students shall be called upon to furnish it by the payment of tuition and board. Such training school as is described by the committee is utterly impractical and if adopted anywhere will result in producing a crop of stilted over-educated women who will be absolutely useless as nurses to care for the sick. Would it not be better to shorten the course of instruction by cutting down the mass of medical theoretical teaching that is now indulged in for the sole purpose of fitting the student nurse to pass the state board examination? It is absurd to expect a nurse to be qualified to answer some of the technical medical questions now asked on examinations. A knowledge of such subjects is only necessary to the medical man. The nurse who is taught to do as the physician directs and is taught in the fundamental principles of nursing the various classes of diseases, and who is inculcated with the "aseptic conscience," and who has performed the routine duties of the ward and operating room, under proper supervision, so many times that she can be safely trusted to do it without direct supervision, is better qualified to perform the duties of a private duty nurse than the one who is only given technical teaching in the lecture room will ever be.

Then it is proposed that a group of nurses shall be still more highly trained for public health work: One of the principal reasons for the shortcomings in the present training of nurses is believed to be the lack of trained leaders and well equipped instructors in schools of nursing. The committee therefore finds "That the development and strengthening of university schools of nursing of high grade for the training of leaders is of fundamental importance in the furtherance of nursing education." This type of school should, in the judgment of the committee, be a separate and independent part of the university, cognate in rank and organization with the school of medicine or the school of law. More than a dozen colleges and universities now provide combined courses through which students may acquire both a nurse's training and a college degree in five years, two years being devoted to the regular college course, two years to intensive training in the hospital and a fifth year to one of the higher specialties of nursing—public health, institutional supervision, or nursing education. The numerical proportion of the nursing profession to be contributed by the university school will perhaps always be a small one, yet the role of these schools in setting standards and in the training of administrators, teachers, and public health nurses is considered to be of the greatest importance."

If a young lady takes this course of training, why should she be satisfied to be called a nurse? It is generally conceded that a public health administra-

tor should have additional training to that required for the degree of Doctor of Medicine, that he should have the degree of Doctor of Public Health through a course in sanitary engineering and in public health problems. The medical schools are open to women. Why should a special school be formed to educate nurses in the manner outlined by the committee? Why duplicate teaching forces? If a young woman can devote five years to the training outlined by the committee, why does she not take the course in the medical schools?

The whole discussion of the subject by the Winslow Committee indicates to me that it has not been done by men familiar with clinical hospital work. Possibly they are fine teachers and fine executives but they are primarily interested in educational methods and not in the problems of conducting hospitals. The training of nurses has gone along very well under present methods. It is practical because in a few months a young lady can be fitted to be of real use to the hospital. She is given an easy and economical method of securing her training. She is given an independent spirit because by her labors she is enabled to reimburse her Alma Mater for the expenditures made in her behalf. She is not dependent upon charity—or endowments—and if the requirements of state boards are made reasonable and the present practice of requiring applicants to answer questions which should only be propounded to medical men is dispensed with, we need not fear but that the various hospital training schools will succeed in furnishing all the nurses that will be required.

The reply to this proposition will of course be that no one can be too highly educated to properly perform the duties of any profession and that we are advocating a reduction in standards of education. We admit the charge if the examinations to which nurses now are subjected by our state board are to be taken as a criterion of the present standard. We claim that there are certain fundamental principles that a nurse should be taught and one of the more important is that she should not herself assume any responsibility that is not specifically delegated to her by the **physician in charge** of the case. She should be possessed of sufficient knowledge to correctly take the temperature, pulse and respirations, and should be able to recognize the advent of unfavorable symptoms and should, at the appearance of such symptoms, be possessed of sufficient common sense to immediately notify the physician thereof, and place the responsibility on him. There should be no divided responsibility between two professions in the care of a patient. It is therefore not necessary that a nurse should be so highly trained as is the physician. If a young lady desires to perform the functions of a physician she should take the medical course. I have been informed by a nurse who has been a supervising nurse and a teacher in a hospital training school, but who has now the way of most good nurses and assumed charge of a home of her own, that in her opinion, nurses, better fitted for private duty nursing were turned out under the old two year training system: That it was her observation that the present high school trained, too aristocratic to permit themselves to perform the menial tasks that are often necessary if a patient is properly cared for. While a member of the State Board of Registration in Medicine I occasionally borrowed questions from those submitted to our nurses by their State Board and found that a considerable percentage of our nursing graduates are specially primed to answer many of these questions by a system of "craming." We claim that the present requirements of our State Nurses Board, the questions asked on examination, do not tend to improve the quality or efficiency of the nurses who are

now being trained to meet such conditions and that whatever efficiency in caring for patients is exhibited by these nurses is due to their daily work in the wards of their hospitals and not to the useless cramming they receive on purely medical subjects.

To enter into a further discussion of the problem of providing adequate nursing care for the people would lead us far into a question of economies. The profession will undoubtedly, record its opinions and recommendations when the Committee of the American Medical Association brings in its report. Until now we have only the views of self-constituted groups, not without personal interest, and who have secured Foundation funds to pursue their fanciful investigations. The medical profession is deeply interested. It cannot be denied that they rightfully are entitled to record their desires. Their recommendations should be carefully considered before any radical changes are instituted in our state hospitals and especially our University Hospital. To surreptitiously attempt to create a new department in our University Hospital, especially when such a department tends to alter the relationship of physician and patient, to change the service of nursing care to the patients of the University Hospital and to limit the activities of the staff of that hospital as well as the Medical Department of our University, cannot be viewed as other than inimical to the good of the public, the interests of the medical faculty and the relation of physicians to their clientele.

It is our opinion that the activities of the promoters of this movement might better have concerned themselves with providing for a class of nurses that would relieve the present situation. No need presses for a super-trained nurse, who at best, barely supplants the cult members amongst us.

In discussing this subject with the physicians of the state, the sentiment that exists I present to you, Mr. Regent and Mr. President, in the following summarization:

1. That we oppose and respectfully request that no further effort be made to institute such a training school in our University.

2. That any plan suggested that alters or modifies the methods used in the University Hospital in its executive or administrative methods, or that affects the University Hospital Training School for Nurses, shall before presentation to the Board of Regents be submitted for consideration and expression of opinion to the faculty of the medical school.

3. That the University Hospital be placed under the supervision and direction of the Dean and Executive Committee of the Medical School. That the Director be obligated to report to the Dean.

4. That the University join with the State Medical Society in an effort to influence the Board of Registration of Nurses to so modify its examinations as to eliminate technical questions that should properly be propounded only to graduates in medicine.

A profession we are concerned with the professional and educational interests of the Medical School and Hospital of our University. We are eager to aid in the enhancement of its standing in the educational world. We are emphatically opposed to its being a party to carrying out the idle machinations of self imbued reformists pursuing the quest of the idealists with a sacrificing of the practical.

The viewpoint and position of the Medical Department of the University was set forth by Professor Warfield, upon Dean Cabot's request, as follows:

The question before us today, as I understand it, is this: Should there be established at the University Hospital a school of nursing education with a

separate faculty composed of professors, assistant professors, associates, instructors, as recommended in the report of the Committee on Nursing Education financed by the Rockefeller Foundation?

It is well known to all here that I have just come from another state and have been connected with a large hospital for some years. The opinions which I shall express in the course of this brief paper are opinions held by me for some time, as a result of observation and study of the general nursing situation, both in private practice, in the hospital, and in the field of Public Health Nursing. They are, therefore, the opinions of an outsider who has come to your state, but who has not yet had an opportunity to inform himself in detail concerning the local situation and, therefore, cannot be influenced in his opinions by any local matters. The question is a broad one and should be considered and settled on a broad basis.

First, I wish to say that this report deserves careful consideration because of the personnel of the committee. The fact that scarcely any male member of the committee is or has been engaged in the practice of medicine in the field, but is a scientist or pedagogue, rather detracts from the combined opinion as to what is best for the medical profession and the public at large.

As the years have passed, the nurses themselves, led by high minded idealists of their profession have been adding and adding to the curriculum until now the didactic side of the training over-reaches the practical side, and young women of high school education are trying to digest courses in anatomy, physiology, bacteriology, chemistry, clinical medicine, which are much more suited to the training of doctors than to the training of nurses. The consequence is, that a mass of misinformation or pseudo-information sticks in the mind of the average pupil nurse which is of no value to her, but on the contrary is of positive harm. She loses the spirit of service and of assistance to the doctor, and often has attempted to tell the doctor what to do. In other words, the present curriculum for nurses tends to make of them neither good nurses nor good doctors. It is the inevitable result of trying to make out of a handmaiden to medicine an equal to medicine; to make a part equal to the whole.

No one will deny that the nurses are more competent today along certain lines than they were 20 years ago, but one has to admit that the average nurse seems to have lost something in the effort to gain a greater and greater medical education.

In reading over the report of the committee, one is struck by the obvious lack of emphasis placed upon service to the patient. It is entirely concerned with educating the nurse. Now, the primary object of any training school for nurses is to train young women to care for the sick. Caring for the sick is not a science. It never will be. It is an art, and all who have come in contact with women who have helped the physician in caring for sick people know that the art is born in the woman and cannot be educated into her. Some of the best nurses we, as practising physicians, have seen have been women who never had a day's training in a hospital. This situation, it seems to me, must be taken into consideration in any discussion of higher education for nurses.

It is not altogether clear in my mind just what is proposed for our hospital. That is, whether we are asked to make two schools of nursing: one that we already have, and another, more highly educational one, to train specialists, with a moderate faculty; or whether it is proposed to take over the whole School of Nursing in the hospital and convert it into a school for the development of teachers of nursing. This, on its face, is absurd. Only a small percentage

of nurses who take training are fitted temperamentally to be teachers and executives. Those who wish to take up such advanced work can always do so, either in the hospital where they have completed their course, or in some other hospital or special institution. No one expects to make scientists, teachers, and research workers out of every medical student, even in the most advanced medical schools. Why should it be thought that it is possible to do this with nurses? There is need for executives and teachers of nursing. No one will deny this, but one hesitates to admit that the best method is the one proposed by the committee.

Now, the report takes cognizance of the fact that the problem is complicated. It is both educational and economic and, in order to meet the economic situation, it suggests private endowment of \$1,000,000—to several schools in different parts of the country. Endowment from the huge Foundations has undoubtedly done much to advance research in medicine and to meet the needs of the public for medical practitioners, but all private endowment tends to develop autocratic powers of control where the money is given. Rarely has a wealthy Foundation managed, naturally, by a board of human trustees, given funds outright to an institution over which it has no control of policy. This appears particularly to be the case in sums donated by one of the huge and enormously wealthy Foundations. Occasionally, indeed, it would appear that the funds had been donated in order to gain a foothold for the eventual domination of the policies of the institution accepting the funds in good faith. Any proposal to establish the sort of nursing education which the report seems to advocate and which it is understood (but from no definite information) is contemplated for the University Hospital, must take into account the factor of expense. Are we not running now dangerously near the limit of expense in the care of patients? Medical education is the most expensive kind of education and nursing education cannot, it seems to me, be divorced from medical education without adding greatly to the expense and without tending, at the same time, to separate the assistant of medicine from medicine. As I see the scheme, the pupil nurses under their separate faculty (an added expense) will be loaned to the hospital for certain hours, say eight hours a day. They will be subject to a curriculum even more advanced than the present too-advanced one. In the hospital they will help to take care of the patients, but the actual nursing will have to be done by a paid staff of graduate nurses, because the pupil nurses, in such a proposed scheme, will be somewhat like medical students: attending clinics, rather than assistants to the staff in the carrying out or remedial measures of all kinds ordered by the staff. A moment's thought will reveal how tremendous the expense will be. It is doubtful, in a hospital as large as our new hospital will be, if the interest of \$1,000,000 will take care of the added expense.

I cannot see how the patients who come here for care and treatment can benefit by another group working over them when they already are being disturbed, sometimes it would seem too much, by their use as teaching material for medical students.

As I said before, and it is well to emphasize this point, the primary function of a nurses' training school is to train women to take care of the sick. The hospital organization demands that there be heads and assistants. The nurse is not a separate entity in the hospital, but is an integral part of the therapy, the treatment of the sick. She carries out the doctors' instructions as to diet, drugs, and general care, and the doctors have delegated to her instructors the duties of showing the pupils how to perform the necessary offices in the care of ill and

disabled human beings. To view nursing education as something apart from service to the sick patient is to put it on a par with education in history or mathematics and to take away from it the very essence of what nursing is, viz: personal service from one to another in times of trouble and illness. To place nursing education on a business basis would defeat the very object of nursing. It seems to me that the plan would tend to draw away from the intimate association with the medical faculty and become a purely intellectual pursuit. The very name: "Faculty of Nursing Education" connotes a departure and separation from the primary object of nursing: service to the patient.

I realize that there should be opportunities for young women to take advanced work which would fit them for positions as teachers and executives. The number of young women fitted by nature for these positions will be but a small percentage in any school of nursing, and executive positions beginning with supervisors of wards are already available in the hospital. For the few who are qualified to take advanced work it would seem to be poor policy to establish what would amount to a school of advanced standing. It would be a tremendously costly experiment.

The point has been raised that a school such as is proposed in the report would attract a greater number of desirable young women. From a rather large experience with hospitals to which training schools are attached, I should say that there are several reasons why young women choose a certain school. It is certainly not primarily on account of the quality of instruction given, or on the standing of the hospital in the community.

This hospital is a university hospital in the strictest sense; a unique institution, officered by the Medical Faculty of the University, a teaching hospital. These are all the qualities which should attract the very best class of young women now. I am told they are not attracted and for one very special reason, viz: the lack of proper living quarters where they will have the physical comforts so essential to their happiness. This, I am convinced, is the chief reason why we do not get more pupil nurses.

To say that young women are not attracted to our hospital because of lack of university standards is to betray a lack of appreciation of the character of the university hospital. Another point which touches us very intimately is that the university hospital is a hospital for our state patients. It is run by the state for the benefit of the people in the state. The public is interested now in obtaining attendants upon their sick who will take charge of the home and be in reality a very real help in times of illness. The graduates from such a proposed school, because of their higher intellectuality, would be even more averse to performing many of the little duties in the sick household than many of the present graduates are. This is a very vital point, as can be attested by physicians out in the field. Does the University Hospital wish to train nurses to care for the great mass of sick, or does it wish to attempt an experiment in training teachers, executives and nurses who will be too highly trained to care for the 90 per cent of illnesses? This is, it seems to me, a most important point to consider.

I do not believe, therefore, that it would be wise to establish a separate Faculty of Nursing Education at the University Hospital. Certainly, before any such radical step is taken, the whole situation should be very carefully considered by a committee of the Medical Faculty who are intimately associated with the problems in the hospital, and who are vitally concerned with the kind of nursing service rendered to the patients.

In order to lay before you some points for discussion, I present my own opinions in regard to some of the disputed points in the broad problems of nursing education.

From the constructive standpoint, therefore, I believe:

(1) The course for trained nurses should be shortened to two years, plus a four months' probation service, during which four months they would receive a large part of their class work in the subjects of anatomy, chemistry, bacteriology, hygiene, pathology, food chemistry, dietetics, materia medica, etc.

(2) The nursing faculty should be composed of teachers of didactic subjects and of practical demonstrators.

(3) The school of nursing should be under the Medical Faculty as a department for the study and care of patients.

(4) The present curriculum should be ruthlessly slashed, so that there are more dietetics, more actual practical demonstration, less anatomy, chemistry, bacteriology, pathology, medical student clinical medicine, etc.

(5) There should be provision in certain schools for post-graduate training.

(6) There should be short courses of training for intelligent women who wish to make a life's work out of attending the sick.

(7) The superintendent of the hospital, being the executive head of the hospital, having to do with all the varied conditions of hospital business, should have only an advisory voice on some committee in the conduct of the training school for nurses.

(8) The policy of the training school for nurses should be guided by a board composed of members of the Medical Faculty, one of whom should be the Dean, the Superintendent of the Hospital, the Superintendent of the Training School, and others to be chosen by them.

(9) The Superintendent of Nurses should be selected by a committee upon which are members of the medical hospital faculty. She may be given an Assistant Professorship of Nursing on the Medical Faculty.

It is thus apparent that I am opposed to the establishment in the Hospital of a Faculty of Nursing Education. I am convinced that certain changes should be made in the curriculum as at present laid down and certain other changes in the general plan should be made. I believe that before any changes are made, there should be full and free discussion among those vitally interested in caring for the sick people of the state.

LOUIS M. WARFIELD.

A general discussion was then engaged in by President Burton, Regent Sawyer, Drs. Jackson, DuBois, Taylor, Frothingham, Hume, Warfield, Dean Cabot, Hueber.

President Dodge offered the following resolution, which was unanimously adopted:

Moved that the following brief statement of our opinion be transmitted to the Board of Regents through President Burton:

It is the well considered opinion of this meeting that the creation at the University of Michigan of a School of Nursing under a faculty separate from the Medical Faculty and from the administration of the Hospital would be very unwise. We are convinced that nursing is most intimately connected with the practice of medicine and that any step which tends to separate it from the practice of medicine will be harmful to the interests of the community. It can-

not be doubted that the responsibility for the selection and for the work of nurses lies and must lie with physicians, who must therefore be importantly concerned with their education. The separation of the training school from the hospital and the medical staff would make such responsibility impossible and would result in chaos.

We are further of the opinion that the present very unusual arrangement at the University Hospital by which the training school for nurses is wholly under the control of the administrative officer of the hospital is unsound in theory and dangerous in practice. We believe that the training school for nurses should be directed either by the Medical Faculty or by a committee appointed by it.

President Burton made the statement that the next step would undoubtedly be the referring of the plan to the Medical Faculty, by the Board of Regents. He also stated that the creating of a new department by the Regents was not a matter easily accomplished.

The Conference adjourned.

Comment: At a meeting of the Regents held September 22 the proposed plan was tabled. There the matter rests officially. The proponents of the plan have evidently not tabled their activities. They are endeavoring to enlist supporters and create a sentiment favoring this new school by continued activity. They are utilizing nurses throughout the state to wage a campaign and are interviewing individuals and requesting them to exert their influence with the Regents. They are also enlisting the support of women's clubs and certain clubs have already sent telegrams to the Regents.

It was the voted instruction of the Conference that no publicity should be given to the discussion that occurred during the meeting.

It was regretted that Dr. Parnall, the recognized proposer of this plan, was not present. We cannot feel that his absence was anything but an expression of a desire to act independently and to ignore the profession. Ample notice was given of the conference. Unexpected emergencies might have been explained by messenger or written communication. As it was, the conference was simply ignored by Dr. Parnall. Does he feel that he does not need to recognize or confer with the profession in this matter? We wonder whether he can wisely and to the best interests of the University Hospital ignore the profession of Michigan.

The plan is vicious in many ways. It is detrimental to the welfare of the Medical Department of the University. It is detrimental to the welfare of the public. It is detrimental to the welfare of the profession. It is urged that the following activity be engaged in:

1. The adoption of a resolution expressing disapproval of the plan and petitioning the Regents to not establish such a training school.
2. Adopting a resolution urging the Regents

to place the University Hospital under the control and direction of the Medical Faculty.

3. That these resolutions be sent to the president and secretary of the university and also to each Regent.

4. That individually you write to the Regents of your acquaintance. The following comprise the Board of Regents:

Junius E. Beal, Ann Arbor.

Frank B. Leland, 133 Griswold Building, Detroit.

William L. Clements, Bay City.

James O. Murfin, Dime Bank Building, Detroit.

Benjamin S. Hanchett, Grand Rapids.

Lucius L. Hubbard, Houghton.

W. H. Sawyer, Hillsdale.

Victor M. Gore, Benton Harbor.

There is need for activity on the part of every County Society and our members individually. There should be no delay. It is urged that you take action at the very earliest opportunity. County Secretaries are requested to read this editorial statement at the first meeting following the receipt of this issue of the Journal.

ABDOMINAL PAIN ACCOMPANYING ACUTE THROAT INFECTION OF CHILDREN

At this time of the year, when throat infections are common among children, we call attention to throat infections complicated by abdominal pain. Attention had previously been called to the relation between generalized infections, glandular infections and abdominal pain by Hutchison and others but this condition had not been previously related to throat infections.

The presence of this condition is dependent upon the coincident occurrence of a throat infection with abdominal pain. The pain described as appearing suddenly and is always centered about the umbilicus. The child, when asked to point to the place of greatest pain, places his finger upon his umbilicus. On further examination he is found to have a definite throat infection of some sort. The pain in the abdomen is quite sharp and not uncommonly its persistent presence has resulted in operation with a tentative diagnosis of acute appendicitis. It is in these cases that the pathological and clinical evidence was found to support this view. These cases were found to show only an acute lymphadenitis of the retro-peritoneal and mesenteric lymph glands with no involvement of the appendix.

With the subsidence of the throat infection and the drop in temperature the pain subsides and the child makes an uneventful recovery.

This condition is of considerable interest because the desirability of differentiating it from acute abdominal conditions, particularly acute appendicitis. However, in all typical cases no rigidity, tenderness or other evidence of peritonitis is to be found, although symptomatically the condition resembles the onset of acute appendicitis. While no experimental evidence has been produced to justify this syndrome, the pathological clinical evidence is quite strong and the conclusion seems quite justifiable.

However, as the author says, "One should not dwell in a fool's paradise." Sore throats and acute abdominal conditions necessitating operation may occur simultaneously and such conditions are recorded. Yet the conservatism of the practitioner who prevents an unnecessary operation upon a child with abdominal pain resulting from a sore throat is commendable. As in other things a happy medium commensurate with good diagnostic acumen is desirable.

H. T. C.

J. Brennemann—American Jour. of Dis. Children, Nov, 1921-22, No. 5.

ROOSEVELT HOSPITAL EXAMINATION

Dr. W. T. Dodge, October 13, 1922
Pres. Mich. State Medical Society,
Big Rapids, Mich.
My Dear Doctor:

The committee appointed by you in accordance with a resolution passed by the State Medical Society, at the Flint meeting, for the purpose of investigating conditions at the Roosevelt hospital, composed of the following members of the State Society, Dr. H. A. Haynes, Lapeer; Dr. Geo. H. Lynch, Big Rapids; Dr. J. D. McCoy, Cass City; Dr. E. N. Nesbitt, Grand Rapids and Dr. W. S. Shipp, Battle Creek, submit the following report:

Your entire committee visited the Roosevelt Hospital on the morning of Oct. 12, 1922, entirely unannounced to the Hospital management. The hospital was found to have a capacity of 124 patients, with 118 now under treatment. Of these 25 are bed patients, the remainder being ambulatory. Additions are now well under way to increase the hospital capacity to 400. There is said to be a waiting list of about 200 at the present time who desire admittance.

The Hospital is pleasantly situated, on high ground, just at the easterly entrance to Camp Custer. The main building is large with abundant air space, and found to be clean, well ventilated, well lighted, well heated and well furnished. Here we found in one wing the large dining room with tables for four (trays are carried to bed cases). Another wing had billiard and pool tables, with other amusements,

and in another we found a number of patients receiving vocational training under the charge of four instructors. Comfortable chairs were to be found all about.

From the main building we visited the sleeping quarters. The rooms are off corridors leading from the main building. All are of good size and well lighted and ventilated, and appeared neat and clean, with sufficient lavatory and toilet equipment. A notable feature everywhere was the fire protection. The entire place being equipped with sprinkler system, besides pressure hose.

The general laboratory, dental and X-ray departments are all well situated and equipped, and in charge of competent heads.

The kitchen is in charge of a trained dietitian and is large and also well supplied with help and equipment, and gave an excellent appearance. A meal was in preparation during our visit and it looked wholesome and good.

Your committee found the hospital management, both business and medical, very courteous and business like. We made personal inquiries of about 25 patients, asking them as to their care, food and general treatment, and we found not one who did not speak well of the institution. All said that they were well fed and well looked after.

The conclusion of your committee, after going thoroughly through and about the Roosevelt hospital, is that it is well and efficiently managed and run, and that the patients there are treated in a manner entirely satisfactory, as evidenced by their word and the smile on their face.

Most respectfully,
(Signed) W. S. SHIPP, Chairman.

"A LETTER TO OUR MEMBERS"

To the Officers and Members of All County Medical Societies.
Gentlemen:

The November number of our Journal contains a statement of the action taken by your representatives at the Conference recently held in Ann Arbor to consider the latest proposition made concerning the training of nurses. It has since come to my knowledge that a campaign of propaganda has been started, through nurses associations, to submit their expressed opinion of your representatives and bring public opinion to bear upon the Board of Regents whereby the establishment of a separate department of our University may be brought about.

This campaign is started by a deliberate misrepresentation that we are opposed to giving the nurses opportunity to further pursue their education after graduating as nurses. This statement is absolutely untrue. Your representa-

tives believe that nurses who aspire to become executives filling public health positions should be fully educated therefor by taking the degree of Doctor of Medicine and then further pursuing their studies until they have acquired the degree of Doctor of Public Health. The President of the University assured us that ample facilities were already afforded by the University to pursue their studies.

Your representatives were opposed to permitting the divorcement of the nursing from the medical profession by the creation of a separate department of nursing training at the University. We believe that the nursing profession and the medical profession should continue as in the past in the closest harmony. That in no other way can either profession accomplish best results. Your representatives were especially concerned with the best course to follow in the training of private duty nurses. We are opposed to the proposal of the Winslow committee that a course of instruction of nine months for training a practical nurse be provided. We are in accord with the proposition that the regular course of instruction be made 28 months. We disagree with the recommendation of that committee concerning the method of instruction to be given. We favor four months of probation during which time the student nurse shall be given class room instruction only and shall not be called upon to do any work in the hospital, to be followed by two years of hospital instruction, in which the student shall do the nursing work of the institution under adequate supervision and bedside instruction. In this way the nurse will maintain her independence and be permitted as at present to pay her services for her instruction and her support. We think this places the nurse in a more favorable position than she would be if dependent upon charity or endowments for her support.

The Winslow report recommends that all the work of the hospital shall be done by hired employees and that the entire time of the students shall be devoted to receiving instruction. Your representatives do not believe that competent nurses can be trained by such a method.

If you believe that your representatives properly expressed your position, please take steps to emphasize that fact by adopting resolutions and sending them to *each member* of the Board of Regents and the President of the University.

1. That the establishment of a separate department in the University Hospital for nurses training is disapproved.

2. That the conduct of the University Hospital and the Nurses Training School shall be again in charge of the faculty of the Medical

School, where it has always been until changed by the exigencies of the late war.

This last is very important. If it is not done, your representatives believe that serious harm will result to the Medical School.

We urge that you cause prompt action by your County Society.

W. T. DODGE, President.

The Regents of the University of Michigan:
Hon. Junius E. Beal, Ann Arbor.

Hon. Frank B. Leland, 1133 Griswold, Detroit.

Hon. William L. Clements, Bay City.

Hon. James O. Murfin, Dime Bank Building, Detroit.

Hon. Benjamin S. Hanchett, Grand Rapids.

Hon. Lucius L. Hubbard, Houghton.

Hon. Walter H. Sawyer, Hillsdale.

Hon. Victor M. Gore, Benton Harbor.

GOITER

The Subject of Exophthalmic Goiter has so long and so often been through the mill that one hesitates to discuss it further for fear of being a bore. However it is possible that a somewhat new and refreshing conception of it may be of some interest. Hyman,⁽¹⁻²⁾ Lieb and Kessel have painstakingly analyzed our current conceptions and by combining good philosophy and analytic criticism brought to light the fallaciousness of our views, at the same time that they presented their new and novel ideas. They have demonstrated the insignificant etiologic relationship the thyroid bears to the cardinal symptoms of hyperthyroidism and exophthalmic goiter and the fact that thyroid enlargement and hyperphasia are hangers-on rather than essential pathologic symptoms. They have been unable to find any one who has recorded the successful production of all the classical signs of goiter by the injection or use of thyroid products. Instead they have shown a remarkable correlation existing between the symptoms of this disease and that due to the disturbances of the autonomic system, symptoms popularized not so long ago by Eppinger⁽³⁾ and Hess as vagatonia and sympatheticonia. So close is the relationship and so easy of production in the laboratory that one can hardly hesitate to accept their views. They conceive a normal person as having either a stable autonomic system or as having a potentially imbalanced autonomic system, the latter being in a state comparable to that of a compensated heart in valvular disease. But like in heart disease the lessened reserve may be demonstrated by the injection of epinephrin, the Goetsch test. These latter so-called normal individuals when subjected to the environmental mental and physical hazards of

life break down their compensation so that they present the signs of an active imbalance of their autonomic system with the symptomatology ordinarily ascribed to hyperthyroidism or goiter namely tachycardia, tremor, nervousness, goiter and positive Goetsch. But they do not present an increased metabolic rate. To these symptoms they have applied the name sympathomimetic manifestations. A person presenting these symptoms may break down further still until they present in addition an elevated metabolic rate with the development of true exophthalmic goiter.

Acting on this premise these workers have been able to treat exophthalmic goiter patients along new and simplified lines and it will be interesting to watch the further history of thyroid disturbances which seems doomed to revolutionary conceptions.

M. L.

1. Lieb, Hyman and Kessel, J. A. M. A., Vol. 79, pp. 1099.

2. Kessel, Lieb and Hyman, J. A. M. A., Vol 79, pp. 1213.

3. Eppinger and Hess, Vagatonia.

CANCER WEEK

It was the universal opinion that "Cancer Week, 1921" did more for the enlightenment of the public in regard to cancer than anything ever attempted previously. The newspaper publicity, the clinics that were held, the educational literature distributed and the public meetings and lectures imparted to the public authoritative information. The people learned the nature, course, symptoms, and methods of prevention and cure of the disease. It lifted the curtain and imparted information that the public needed. Thousands profited by reason of these activities during Cancer Week. It was a wonderful work.

Inspired by the success of the movement, Cancer Week for 1922 has been designated as November 12-20. The work of 1921 is to be enlarged upon and farther reaching steps are being taken to make it more successful than last year. The movement has been endorsed by President Dodge and the Council of our State Medical Society. Dr. Reuben Petersen is again state chairman.

It is urged that every county society cooperate in every possible way. Foster the movement so as to make it a success in your county. See that a public meeting is held and have your society sponsor that meeting. Interest the editors of your local papers. Induce your church pastors to support your activities and address their congregations upon the subject. Cause your friends to attend these meetings. This year's Cancer Week must exceed

in achievements that which was accomplished last year. The success depends in direct amount upon the effort you put into it. Why not one hundred per cent? It depends upon you.

Editorial Comments

Anonymous communications receive no attention. In this instance if you have a grievance against a fellow or group of fellows go to them personally, or, appear with your charges before the officers of your County Society. Your editor does not propose to be a general prosecutor, nor is he seeking to continually keep washing the dirty linen of any locality.

The "Chiros" are again asking for a State Board. Have you talked to your representatives in Lansing? Do it now and give them your side before these "Chiros" pump them full with propaganda.

The following extract from the address of the President of the Ohio State Medical Society is germane to the profession of Michigan:

"An active, harmonious and zealous profession, with interest in the work for the betterment of the physician and the conditions under which he must work, is one of the greatest needs of the profession today. The whole profession is not at its task. If 15 per cent of the profession with the greatest foresight and vision should suddenly discontinue their activities on behalf of their professional brethren the profession itself would be left flat on its back. The larger percentage of physicians look to the few for enlightenment and guidance, and when that does not shine to the greatest degree of brilliancy or there is an obstruction in their path which is not successfully overcome, the cry of criticism is heaped upon those who have been most active and loyal. More physicians must devote more thought and effort to organization. The rank and file must realize how impotent are the officers and committees without the active support of the entire membership.

"We need medical organization as never before, through which medical thought and medical leadership can be expressed. We need organization not to complain, object and resist, but to explain, direct and construct. We need it for mutual help and protection of the profession. We need it for the protection and welfare of the people. Always realizing that the state medical association depends on strong, active, loyal county societies and local academies of medicine, our efforts constantly should be exerted toward increasing the effectiveness of the central organization, which is the point of contact not only with governmental functions, but also with other statewide and with national organizations and groups interested in allied issues. The mechanics of organization must be steadily added to and enlarged. Every eligible physician should be induced to become a member of his county and state association. I foresee in the not distant future a substantial in-

crease in membership dues. Ten dollars a year per member for the state association should not be considered too large. It would be ridiculously small in comparison to membership dues in many other kinds of organizations."

Will you participate in bringing about a greater degree of activity in your county?

The profession was distinctly honored in the election of Dr. Harkness of Houghton as State Commander of the American Legion. Though there has been much discussion of the bonus question, that propaganda is not the principal motive of the Legion. It is accomplishing splendid results along other lines that commend themselves because of their high motives. We look forward to a year of greater achievements under the direction of the new commander. We congratulate Dr. Harkness upon this deserved honor.

The Annual Red Cross Roll Call is to be held this month. We know what the Red Cross did during the war. We know what it does where a calamity overtakes a community. For that type of work we have nothing but the greatest praise and commendation. We believe that to be the field and scope of activity of the Red Cross. We believe that in such work it merits our support. On the other hand, recently the Red Cross has entered a field of health nursing. In doing so, it has gone beyond its scope. In doing so it forfeits a right to financial support. Until the Red Cross withdraws from health activity our contributions should be withheld. The American Medical Association by resolution expressed disapproval of the public health activities of the Red Cross. The House of Delegates held that a continuation of such health activities by the Red Cross would promote community irresponsibility and helplessness.

Again we repeat, the Red Cross does not merit financial support until it withdraws from that field of activity.

The annual conference of secretaries of State Medical Societies will be held in Chicago at the headquarters of the American Medical Association on November 17th. The plan of the work of the Michigan Joint Committee on Public Health Education will be presented and discussed at that meeting.

At a representative gathering of active members of the profession a unanimous expression was made that a training course of two years and four months was ample for a trained nurse. That her requirements should be first, personal adaptability; second, a preliminary education equivalent to eighth grade school work, and third, that she should be taught less of the science of medicine and more of nursing principles and practice. The opinion was also advanced that the requirement and standards of the State Board of Registration in Nursing was too severe and high. In brief that the present nurse graduate if over-trained in theoretical knowledge and under-trained in practical nursing. The need exists for nurses who can contribute to the patient's

comfort rather than the nurse who can interpret the diagnostic symptoms. The massage, bath and treatments given by the present day graduate accomplishes far less than what might be accomplished by such measures. We are amused, in walking through hospital wards, while witnessing the usual back-rub that is given by the nurse—a listless, light and dainty passage over the skin with a lily-white hand that contains a few drops of the rubbing compound and presto! a "back rub" is recorded upon the chart. A waste of time and nothing done for the patient that is of any value or comforting. We hope that we are on the eve of change from the ideal and ultra-scientific to the practical and useful in the training of nurses.

You owe it to your patients and community to extend to them the message of hope during Cancer Week. More people, after the age of forty, die of cancer than of tuberculosis or pneumonia. This mortality rate can be reduced. The avenue of activity is education. See that the people of your community receive that education. Co-operate with your local committee and aid the officers of your county society in the work of Cancer Week.

Correspondence

The Editor of the Journal of the Michigan State Medical Society:

The Alpena County Medical Society is pleased to report 100 per cent membership. Doctors E. L. Foley and H. J. Burkholder, excepted. Dr. Foley being the o ender.

Because of very unprofessional actions, Dr. E. L. Foley was suspended from our society in April, 1920. (His signature to a death certificate and this the copy: Cause of death Septic Peritonitis. Contributory cause, Dilatation and Curretinent of Uterus. Operation by Dr. McDaniels and Dr. McDaniels was a member in good standing at the time. An autopsy was ordered by the coroner, Dr. D. A. Cameron and performed by Dr. Morse of Harper hospital, Detroit. The findings of same being, Cause of Death, Pernicious Anemia (so signed by the coroner) and no evidence of present or past pregnancy being present.)

He appealed to the M. S. M. S. and was given a hearing before its council in Bay City in June, 1920. The Council vindicated the action of our society without one dissenting vote, but, with the recommendation that he be given six months to make amends and come square and in the event he did he should be reinstated. He made no amends, rather the opposite with the result that our society expelled him in Oct. 1921, and it stands expulsion today.

The Alpena County Medical Society goes on record that this communication be given space in the Journal of the M. S. M. S. and too that a copy of the same be sent to the Journal of the A. M. A. under Michigan News.

Fraternally,

JOHN S. JACKSON, Secretary.

D. A. CAMERON, President.

Deaths

Doctor Andrew Forster died August 24, 1922. He was a graduate of St. Bonaventure College and from the Jefferson Medical College.

The death of the following doctor, not a member of the society has been reported: Alfred H. Tucker.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

During the past year the library of the Wayne County Medical Society has received 1,243 bound volumes and about 300 unbound numbers of valuable journals from Dr. W. P. Manton; some 200 books from Mrs. H. W. Longyear; 400 volumes from Dr. G. B. Lowrie; 300 volumes from Mrs. A. H. Steinbrecher; and 160 volumes from Dr. Ray Connor. Over 20 physicians and nearly ten institutions have also given the library books and journals during 1921-1922. At the present time there are about 15,000 volumes in the library.

Dr. George Dock of St. Louis has presented the Wayne County Medical Society with a portrait of Dr. William Beaumont and one of Sir William Osler.

The following physicians were active in the drive for new members for the Detroit Board of Commerce: Drs. C. D. Brooks, W. R. Clinton, H. B. Garner, J. H. Greenwood, Stewart Hamilton, L. J. Hirschman, P. F. Morse, Angus McLean, F. B. Walker, Walter J. Wilson and William A. Wilson.

Drs. W. H. Browns, H. I. Gratton, Frank MacKenzie, George Reberdy and C. E. Vreeland were elected members of the Detroit Athletic Club at the September meeting of the Board.

Dr. Herman H. Sanderson read a paper on "Tuberculin Therapy in Eye Affections" before the Detroit Ophthalmological and Otolological Club Oct. 11, 1922.

The Detroit Academy of Medicine were entertained at dinner in the Detroit Athletic Club Oct. 10, 1922, by Dr. Guy L. Kiefer, the retiring president. Following the dinner, Dr. Kiefer read a paper on "Industrial Medicine." Dr. B. R. Shurly was elected President; Dr. W. H. Morley, Vice President; Dr. H. L. Simpson, Secretary-Treasurer, and Dr. F. W. Robbins, Director.

The Michigan State Board of Registration in Medicine held its fall examinations in Lansing Oct. 10, 11, 12, 1922.

Dr. Cyril K. Valade and Miss Marion I. Anderson of Detroit were married on Oct. 5th. After a honeymoon in the east they will be at home in Detroit after Nov. 1st.

Born to Dr. and Mrs. L. C. Donnelly of Detroit, a baby girl on Oct. 15th.

Butterworth Hospital, Grand Rapids, resumed its regular monthly practitioners' clinic after a summer recess. Physicians from surrounding communities are cordially invited. The day is spent in clinics,

diagnostic procedures, discussions and demonstrations.

The Michigan and Indiana Sections of the American College of Surgeons will meet in Evansville, Ind., on Dec. 4 and 5.

Dr. John R. Rogers and Dr. Harrison S. Collisi of Grand Rapids were conferred the Fellowship degree of the American College of Surgeons at Boston convocation.

We again urge that you send in news items from your locality.

Allan D. McDonald, son of Dr. Allan W. McDonald of Detroit, entered West Point Military Academy this fall.

Drs. Angus McLean, F. B. Walker and B. R. Shurly, delegates of the Detroit Chapter, attended the National Convention of the Military Order of the World War at Atlantic City Sept. 18-20, 1922.

The Bulletin of the Wayne County Medical Society announces that Dr. Walter P. Manton can be addressed by his friends at 1260 Linda Vista, R. F. D. No. 2, Box 51, Pasadena, Cal.

The Annual Convention of the Radiological Society of North America will be held in the Statler Hotel, Detroit, Dec. 4, 1922.

Dr. John M. Carter returned to Detroit recently after a three months' trip abroad.

Dr. William A. Evans of Detroit read a paper at the annual meeting of the American Roentgenological Society, held in Los Angeles this fall, on "The Value of the Roentgen Study of Mastoid Disease in Children Under Five." Dr. Evans is treasurer of this society.

Dr. Warren L. Babcock, Superintendent of Grace Hospital, Detroit, returned in September from a visit to Europe.

Dr. Walter L. Hackett left Detroit in September for London, England, to study for a year.

A celebration of the one hundredth anniversary of the birth of Louis Pasteur will take place in Philadelphia Dec. 27, 1922.

Dr. Theophilus T. Dysarz was appointed Health Officer of Hamtramck and Dr. Paul A. Klebba was elected a member of the Council of Hamtramck Sept. 19, 1922.

Dr. and Mrs. James Cleland of Detroit spent several weeks this fall in Atlantic City.

The Second Annual Cancer Week will be held in Detroit Nov. 12-18, 1922, under the auspices of the Committee on Cancer of the Wayne County Medical Society in conjunction with the American Society for the Control of Cancer and the Detroit Department of Health. It is expected that Dr. Joseph Hodgwood of Baltimore will be one of the out-of-town speakers.

The new Navy Hospital, erected in San Diego, Cal., at a cost of \$1,000,000 was opened Aug. 24, 1922.

Dr. Louis M. Warfield, Professor of Medicine in the University of Michigan, read a paper on "Hodgkin's Disease and Allied Conditions" before the

Detroit Branch of the Society of American Bacteriologists at the Medical Building, Detroit, Sept. 27, 1922.

The Twelfth Annual Meeting of the American Child Hygiene Association was held in Washington, D. C., Oct. 12, 1922.

Dr. Alois Thuner of San Diego, Cal., spent part of September and October in Detroit. Dr. Thuner practiced medicine nearly 40 years in the City of the Straits. Two years ago he retired from practice and moved to California.

Drs. Robert Tapert, Walter E. Welz and A. S. DeWitt left Detroit Aug. 31, 1922, for a six weeks' trip abroad.

Sixteen members of the Wayne County Medical Society died during the past society year.

Dr. Patrick L. Ledwidge, one of the residents during the past year at Harper Hospital, Detroit, was married Aug. 31, 1922, to Miss Mary J. Hookey.

The following Michigan physicians attended the Annual Meeting of the American Academy of Ophthalmology and Oto-Laryngology, held in Minneapolis and St. Paul, Sept. 18-23, 1922: Doctors G. H. Boyce of Iron Mountain, W. B. Boyce of Escanaba, B. N. Culver of Battle Creek, C. R. Elwood of Menominee, M. A. Farnsworth of Grand Rapids, P. T. McKinney of Saginaw, P. T. Grant of Grand Rapids, George Slocum of Ann Arbor, L. W. Toles of Lansing, D. E. Welsh of Grand Rapids, Robert Bettie of Detroit, E. J. Bernstein of Detroit, Neil Bentley of Detroit, Ray Connor of Detroit, Don M. Campbell of Detroit, W. S. Gonne of Detroit, R. S. Goux of Detroit, W. R. Parker of Detroit, H. W. Peirce of Detroit and J. S. Wendel of Detroit.

The engagement of Franklin Robbins, son of Dr. and Mrs. F. W. Robbins of Detroit, to Mrs. Claytice W. Brown, was recently announced.

Dr. Stanley V. Laub of Detroit was married, Sept. 26, 1922, to Miss Dorothy F. Wilder, also of Detroit.

Mrs. Hal C. Wyman, widow of Dr. Wyman, and her daughter, Anne, left Detroit Sept. 27, 1922 for California, where they will spend the winter.

September 1, 1922, the Washington Arcade, Detroit, was closed as an office building. The physicians having offices in that building, moved for the most part into the Stroh building, the Professional building, and the David Whitney building. Doctors George Fay, J. B. Kennedy, George Kennedy, Charles Kennedy, William Kennedy, Dale King and George Parmalee moved into the Professional building; Doctors A. D. McAlpine, John McAlpine, and C. C. Wright into the David Whitney building, and Doctors A. O. Brown, G. L. Connor, Ray Connor, A. H. Goerenfle, James Hall, B. D. Harison, George Lowrie, G. H. McMahan, Carl Muenz, J. Rosenthal, Glenn Stockwell, C. H. Schulte and Wadsworth Warren into the Stroh building. Doctor M. V. Meddaugh moved his office to his home, 1309 West Warren Ave., and Doctor Robert A. Simpson to his home, 3010 McGraw Ave. Dr. J. E. Clark moved his office into the Shurly building.

After waiting patiently for years, the city of Monroe can now boast of as nicely equipped little hospital as there is in the state for its size. It was built, and is being maintained by Dr. A. W. Karch of Monroe. It is of pressed brick

construction, three stories in height and can accommodate about thirty patients. Has all the latest equipment, including X-ray, modern sterilizer and operating rooms. Since the opening, last August, it has been filled to capacity and bids fair to be a success in every detail. Dr. Karch has the best wishes of the people and medical profession of Monroe County for future success of this much needed institution.

Dr. C. J. Golinvaux has opened an office in Monroe over Hurd-Sterling Co., 5 S. Monroe St., recently vacated by Dr. Brin Miller. Dr. Golinvaux is a recent graduate of the medical school of St. Louis University, St. Louis, Mo., and just completed a year's internship in St. Vincent's Hospital, Toledo, Ohio, and Lafayette Maternity Hospital, St. Louis, Mo. Dr. Golinvaux comes to Monroe highly recommended and has the best wishes of the profession at large, for success.

Dr. Chas. T. Southworth, Monroe, has entirely recovered from his recent severe illness, and is back in his office.

Dr. Carl L. Ratigan of Detroit was married, Sept. 26, 1922, to Miss Adeline M. Page of Windsor, Ont.

Dr. Iver E. Reed of Detroit was married, Sept. 20, 1922, to Miss Catherine I. Ensley, also of Detroit. Dr. Edward Crump was best man and Dr. Owen Foster was one of the ushers.

Miss Karelyn Smith, daughter of Dr. and Mrs. Eugene Smith of Detroit, was married, Sept. 20, 1922, to Mr. Ralf A. Crookston, son of Mrs. Nellie Crookstone of Newburg, N. Y.

Dr. and Mrs. Arthur L. Gignac of Detroit announce the birth of a daughter, Rita Marion, Sept. 8, 1922.

County Society News

GENESEE COUNTY

The Genesee County Medical Society met on Sept. 20, President Miner presiding. Dr. M. A. Mortensen of the Battle Creek Sanatorium gave a most thoughtful address on "The Management of the Cardio-Renal Case." He discussed the various etiological factors concerned in the production of this most common affection. He briefly outlined the renal function tests which he had found the most useful. In treatment advised removal of foci of infection, regulation of habits, a diet with a low protein intake, restriction of fluids, and cardiac stimulants as might seem to be indicated.

The Genesee County Medical Society met at noon luncheon on Wednesday, Oct. 4, President Miner presiding. Dr. Bruce Lockwood of Detroit spoke on "Present Day Conceptions of Diet Adjustment in Diabetes." He gave a most interesting historical review of the various dietetic procedures that have been used since the disease has been recognized. He then outlined the principles of diet adjustment and clearly showed how to arrive at the proper proportion of protein, carbohydrate and fat in given cases.

The annual meeting of the Genesee County Medical Society was held on Wednesday, October 18th. The annual reports of the officers showed the society to be in a very prosperous condition. It is particularly noticeable that the society showed more interest in various civic problems.

than ever before. Miss Alice M. Crane of Ann Arbor addressed the society on "The Separate the nurses standpoint. Dr. A. W. Crane of Kalamazoo spoke on "The Diagnostic Field of the X-ray in Appendicitis." The lecture was copiously illustrated by lantern slides, and proved the retiring secretary for his work of the last most instructive. A vote of thanks was tendered three years. The following officers were elected for 1922-23.

President, Carl Chapel.

Vice President, W. H. Winchester.

Secretary, Max Burnell.

Medicolegal Officer, F. B. Miner.

Directors, N. Bates, C. H. O'Neil, H. E. Randall, J. G. R. Manwaring, B. E. Burnell.

Delegates to the State Society, J. C. Benson, C. Moll.

Alternates Delegates, D. D. Knapp, W. H. Winchester.

W. H. MARSHALL,
Secretary.

HILLSDALE COUNTY

The regular quarterly meeting of the Hillsdale County Medical Society, was held at the court house, Hillsdale, Tuesday, October 10, at 7:30 p. m., the president, Dr. Hanke, in the chair.

Dr. Charles W. Hitchcock of Detroit, favored the society with an interesting and instructive paper, "Some Practical Lessons from Psychiatric Cases," from the case notes of the author. He called especial attention to the danger of trusting patients suffering from melancholic dementia for a moment, no matter how earnest their promises of good behavior. The paper was discussed by Dr. Sawyer and others and Dr. Hitchcock answered a number of questions by Doctors Green, Sawyer, Barnes and others.

The society then listened to a charming paper by Dr. Jas. M. Barnes of Waldron, "The Physician or Doctor," which was a forceful plea for a re-establishment between the doctors of today and their patrons of the old-time relationship and a depreciation of the commercial spirit that seems to be creeping into certain portions of the profession. Also the danger of trying to be too much of a "good fellow" with the "bunch," and the importance of the doctor spending his spare time in trying to learn more about his profession instead of in the pool room or hotel lobby.

The discussion of this paper was general and it was greatly appreciated.

Adjourned until the annual meeting.

D. W. FENTON,
Secretary-Treasurer.

MONROE COUNTY

The Monroe County Medical Society held their fall meeting at the Monroe club, Tuesday afternoon, October 17, at 2:00 p. m.

The main business of the afternoon was the election of officers for the coming year. Those elected were: President, Dr. J. J. Siffin, Monroe; Vice President, Dr. S. U. Dussean, Erie; Secretary-Treasurer, Dr. H. W. Sandon, Monroe; Corresponding Secretary to State Journal, Dr. F. C. Thiede, Monroe; Member Medicine Defense Committee, Dr. C. T. Southworth, Monroe; Dele-

gate to State Convention, Dr. J. A. Humphrey, Monroe; Alternate, Dr. W. F. Acken, Monroe; Program Committee for year, Drs. A. W. Karch, W. F. Acken, and H. W. London, Monroe.

One new member was voted in the society, Dr. C. J. Golinvaux, who has recently located in Monroe.

We also had a very interesting paper and lantern slide demonstration of X-ray plates, showing numerous fractures and their complications, by Dr. A. M. Unger of Toledo, Ohio.

It was decided to continue the regular monthly meeting and luncheon at the Park Hotel, the coming winter. They will be held every third Tuesday of the month and the program committee, Drs. Karch, Acken and Landon promising us some very interesting papers for the coming year. Last year we had some very good meetings and the attendance was fair, but this year we want even better. All members are urged to appoint themselves as a committee of one and attend every meeting this coming winter, it is only one day a month and we are sure you can tear yourself away for one afternoon. We promise you the "eats" will be as good as ever. Remember they start at 12 noon, the third Tuesday of each month, you will be notified by card.

The following members were present at this meeting: Doctors Acken, Siffin, Southworth, Miller, Hathaway, Karch, Thiede, Humphrey, Landon and Golinvaux, all of Monroe and Dr. S. V. Dussean of Erie and Dr. O. M. Unger of Toledo.

ACADEMY OF SURGERY OF DETROIT

The regular meeting of the Academy of Surgery of Detroit was held at the office of Dr. Max Ballin, 269 Rowena street, Friday evening, Oct. 13, at 8 o'clock.

The program for the evening was as follows:

- 1—Gastric Fibroma Meningocele....Dr. N. M. Allen
- 2—Syphilis of the Stomach.....
.....Drs. R. C. Moehlig and E. G. Minor
- 3—Blood Counts in Goitre.....Dr. David Kallman
- 4—Anterior Abdominal Tenderness in Sacro-
Iliac Strain.....Dr. H. C. Saltzstein
- 5—Remarks of Interest to the Society..Dr. M. Ballin

DR. MAX BALLIN,

President.

WYMAN W. BARRETT,

Secretary.

OFFICIAL MINUTES OF THE JOINT COMMITTEE ON PUBLIC EDUCA- TION. OCTOBER 9, 1922

The meeting of the Joint Committee on Public Education was held in the Michigan Union at Ann Arbor at 12:00 p. m., October 9, 1922. President Burton presiding and the following members present: Burton, Kay, Olin, Cabot, McCracken, Sundwall, Dodge, Henderson, Storey, Frothingham, Huber, Biddle and Warnshuis.

The minutes of the last meeting were approved as read.

Professor Henderson, chairman of the sub-committee on speakers and topics reported that 10,000 copies of the University Bulletin had been printed. That 8,000 copies had been given state-wide dis-

tribution. That twenty-five lectures had been given and that since the opening of the University for its 1922-23 session, 36 requests had been received for speakers. He further reported that these requests were coming in rapidly and that the extension committee was arranging for a large number of meetings to be held during the fall and winter months.

Dr. Storey, Chairman of the Committee on Public Education of the Wayne County Medical Society, addressed the committee regarding the plans of the committee of Wayne County. The committee engaged in a discussion of plans of co-operation with the Wayne County Committee and it was moved by Dr. Olin, supported by Dr. Dodge, that the chairman of our committee on Topics and Speakers co-operate with Dr. Storey in planning the meetings for Detroit and that a close liaison be maintained by our committee on Speakers and Topics with Dr. Storey so that there would be no duplication of the lectures or conflict with the work that is being done by the two committees.

It was moved by Dr. Dodge and supported by Dr. McCracken that the Committee of Wayne County nominate ten names from Detroit for our Speakers' Bulletin and that these men be available for lectures throughout the state.

Because of removal from the state or for other reasons, the Committee on Speakers and Topics was directed to remove from the Speakers list the following names: Harriet Leck, C. W. Edmunds, Professor Warthin.

On motion of Dr. Dodge, supported by Dr. Cabot, it was moved that the Chairman of the Committee on Speakers and Topics eliminate the names of lay speakers unless said lay speakers understand that they are to pay their own expenses, since the committee has no funds for this purpose. That their names may be retained upon the list if these speakers understand that they are to pay their own expenses.

Upon motion of Dr. Dodge, supported by Dr. Huber, it was moved that the name of every member of the Joint Committee be added to the list of speakers and that they be requested to submit the topics of their lectures.

Moved by Dr. Biddle, supported by Dr. Dodge that Dr. Henderson communicate with the listed speakers and secure from them a new acceptance and the topic of their lectures. Further, that Dr. Henderson ask Dr. Storey, Chairman of the Wayne County Committee to submit an amended list of speakers. Carried.

Moved by Dr. Biddle and supported by Dr. Kay that the Sub-Committee on Speakers and Topics be authorized to select speakers in counties that have not submitted lists of speakers. Carried.

Moved by Dr. Biddle, supported by Dr. Kay, that the Deans of the Medical Schools be authorized to submit supplemental lists of speakers. Carried.

Moved by Dr. Frothingham, supported by Dr. Sundwall that letter heads be authorized. That said letter heads should contain the slogan of the committee, names of the members of the Joint Committee and in addition directing that correspondence regarding lecture engagements be sent to Dr. Henderson and correspondence regarding the general activity of the committee be sent to Dr. Warnshuis.

On motion of Dr. Dodge, supported by Dr. Cabot, the matter of establishing a course of lec-

tures in the colleges of Michigan for the benefit of the students attending these colleges was referred to President Burton for investigation and recommendation.

Upon motion of Dr. Cabot, supported by Dr. Dodge, the special committee on Speakers and Topics was authorized to compile and issue a second edition of the Bulletin for state-wide distribution.

Upon motion of Dr. Huber, supported by Dr. Kay, the Committee on Speakers and Topics was authorized to aid the State Commissioner of Health to the extent of supplying his department with speakers at the roundup meetings of the public health weeks that the department is conducting throughout the state.

Upon motion of Dr. Dodge, supported by Dr. Cabot, the meeting adjourned to meet in Ann Arbor at 12 noon, January 16, 1923.

F. C. WARNSHUIS,
Secretary.

Book Reviews

OPHTHALMOSCOPY, RETINOSCOPY AND REFRACTION. W. A. Fisher, M. D., F. A. C. S., Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College. Cloth, 217 pp. 248 illustrations. Published by author, 31 N. State St., Chicago, Ill.

Ophthalmoscopy is generally considered as a difficult subject. It is one that is not taught either practically or successfully in medical colleges, with the result that scarcely two per cent of practitioners coming to the author for post-graduate teaching know how to use the ophthalmoscope.

In the author's opinion ophthalmoscopy and the fitting of glasses belong to the general practitioner, and acquirement of the necessary practical and theoretical knowledge is easy, interesting and within the reach of all.

This book has been written with the intention of teaching medical practitioners and students the practical use of the ophthalmoscope and retinoscope, with easy application of methods of study, to the detection of diseases of the interior of the eye, and for the fitting of glasses when they are indicated.

By mastering the methods here described and equipping himself with the necessary instruments, there is no reason why the general practitioner should not prescribe so as to correct the common errors of refraction and become proficient in the use of the ophthalmoscope.

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The Journal

OF THE

Michigan State Medical Society

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Vol. XXI

GRAND RAPIDS, MICHIGAN, DECEMBER, 1922

No. 12

Original Articles

FURTHER EXPERIENCE WITH THE TWO-FLAP LOW INCISION CESAREAN SECTION*

ALFRED C. BECK, M. D.
BROOKLYN, N. Y.

The classical or fundal cesarean section has been so perfected that in properly selected cases the risk is but slightly greater than that which accompanies the average clean laparotomy. The technic likewise is so simple that our bad results seldom are due to lack of operative skill, but on the contrary may be attributed to poor judgment in the selection of cases.

The ideal time for a cesarean section is just before or in the early hours of labor, when the membranes are intact and no vaginal examinations have been made. If we cling to this elective time for operation either too many or too few cesarean sections will be done.

In patients with absolute contractions of the pelvis our plan of treatment is clear, as in these cases we can anticipate suprapubic delivery and be prepared for operation at the most suitable time. Absolute contractions however are rare.

Most of our dystocias occur in patients with pelves that are relatively contracted, i. e., those with diagonal conjugates of from 10 to 10½ cm. As the great majority of these patients may be delivered through the natural passages it would be poor judgment to do cesarean sections on all of them at the onset of labor. On

the other hand if we wait until the patient has had an opportunity to engage the fetal head in her relatively contracted pelvis before we decide that suprapubic delivery is necessary, the optimum time for cesarean section will have passed. Those of us who are conservative will then hesitate to do this operation because of the greater risk to the mother. We either must do a craniotomy on the patients who fail to deliver after a test of labor or use a cesarean section technic which eliminates most of this added risk.

The great increase in the maternal risk is due to the increasing danger of peritonitis as labor progresses, particularly after the membranes have ruptured and many vaginal examinations have been made. Infection of the peritoneum may result from (a) a break in the operating

room technic; (b) spilling of the amniotic fluid; (c) extension of the infection from a septic uterus through a broken down uterine wound; (d) lymphatic extension, as in the ordinary cases of puerperal infection. The first two of these modes of infection need not be considered. In our

experience they seldom are factors. Most of our fatal cases first showed evidence of peritonitis in from 5 to 7 days after operation and autopsy revealed broken down uterine wounds through which contaminated material from the septic uterine cavity reached the peritoneum, thus causing a fatal peritonitis. We therefore feel that any method which is to reduce the mortality of cesarean section done late in labor must be one that will prevent extension of infection through the wound in the uterus.

To accomplish this, two plans are possible; first we may do an immediate hysterectomy and thereby remove the wound in the uterus, or sec-

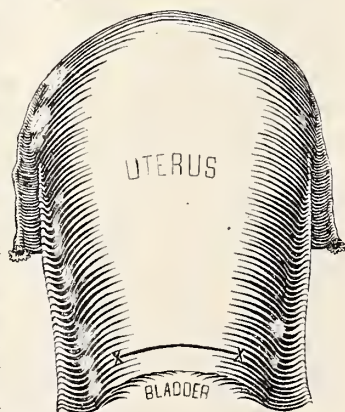


Fig. 1

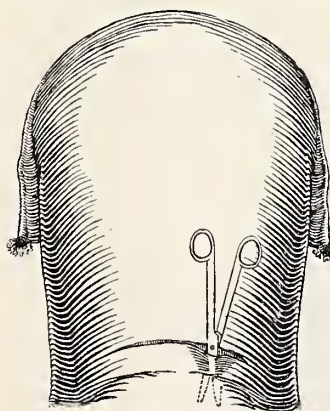


Fig. 2

*Read before Annual Meeting, M. S. M. S., Flint, June, 1922.

and we may avoid the sacrifice of the reproductive function by choosing the most favorable site for our incision and completely sealing it with peritoneum. At the Long Island College Hospital, we have adopted the latter plan. After trying the several types of low incision cesarean section we chose the Kronig operation as a routine procedure and the technic which I shall show you is a modification of that described in Kronig's text book.

When the incision is made in the lower segment of the uterus the wound sinks into the

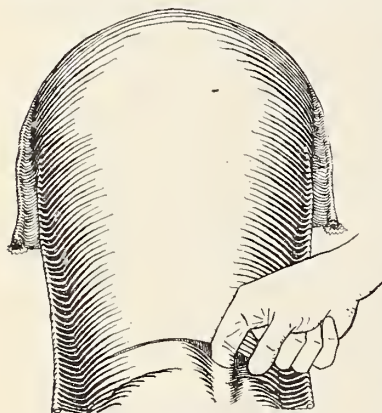


Fig. 3

may result. In addition we thoroughly seal the uterine wound with two flaps of peritoneum.

Figure 1 shows the site of the incision in the peritoneum which covers the lower segment of the uterus. Late in labor the peritoneum in this region is loosely attached. With the tissue forceps it is picked up and cut at a point about 2 cm. above the upper margin of the bladder. This incision is extended laterally

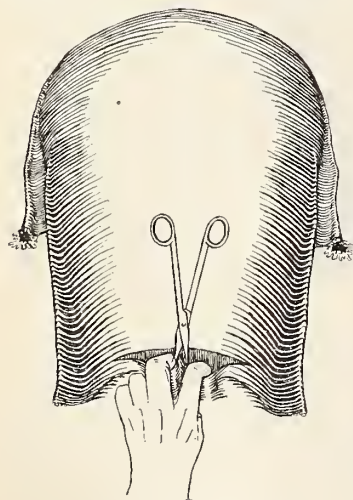


Fig. 4

continued by sweeping the finger from side to side in this area. Figure 3. (Little difficulty will be encountered if the operator avoids beginning this dissection in the midline). The opposite side is prepared in a similar manner, care being taken to again avoid the midline. Two fingers are then introduced under the

pelvis as soon as the operation is completed. Should infection extend through the wound a greater opportunity to wall it off is thus afforded and a localized pelvic peritonitis rather than infection of the general peritoneal cavity

separated bladder as shown in figure 4 and the more firmly attached tissue in the midline is cut. The fingers are then swept from side to side until the bladder is separated for a distance of about three inches below the original transverse incision. In the preparation of the upper flap the dissection should be started at least 1 cm. from the midline on each side, the scissors being passed upward and outward as indicated in figure 5. The more firmly adherent areas which cannot be separated by blunt dissection are cut. Occasionally the peritoneum in this upper flap may be perforated. This is not a serious accident, as the perforation can easily be closed later in the operation. If a little care is used in the preparation of these flaps, excellent cleavage planes will be found

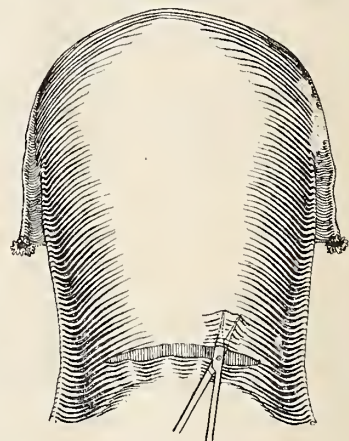


Fig. 5

and little or no hemorrhage will take place. The inferior flap is now retracted, care being taken to pass a retractor to the lowermost portion of the dissected area. To accomplish this, one must use a Deaver retractor or some similar instrument. The uterine incision itself is made vertically in the midline. After making a stab wound in the region shown in figure 6, the lower two-thirds of the incision is completed by cutting with a straight pair of scissors. Frequently the flow of blood and amniotic fluid obscures the field of operation. When this occurs, the operator need have no hesitancy in deliberately though blindly, continuing as the bladder is held out of the field by the Deaver retractor.

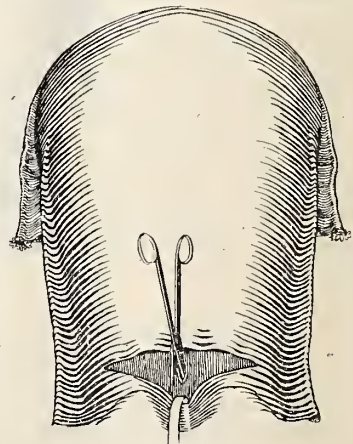


Fig. 6

Under these circumstances, he should be careful to avoid removing the point of his scissors from the wound until the incision is completed. Dr. DeLee has devised an ingenious knife, the use of which eliminates to a large extent the difficulty above described. After retracting the upper flap, the superior third of the incision is completed. The hand is now introduced into the uterus below

the presenting part and the assistant, by making pressure on the fundus forces the presenting part through the uterine wound. If any difficulty is encountered in the extraction, forceps may be applied to the sides of the head. Many of the men who favor this operation, prefer to deliver the head with forceps. For a long time I have been able to accomplish the delivery without the use of these instruments. Pituitrin should not be given until the child is delivered,

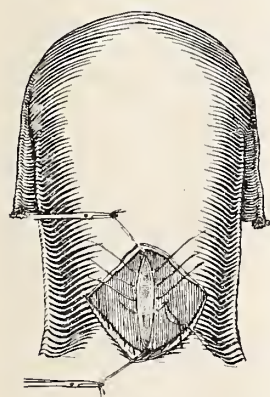


Fig. 7

as the contracting uterus may force the head against the brim and thus greatly interfere with the extraction. If the presenting part is firmly fixed in the brim before operation, it should be dislodged by the finger introduced into the rectum or vagina, prior to the starting of the anesthetic. There is no need for haste and if any difficulty in extraction is encountered, several minutes may with safety be consumed by this step of the operation. Immediately after the delivery of the child, pituitrin is given and a traction suture is introduced at each angle of the uterine incision. See figure 7. By pulling on these sutures, the assistant brings the uterine incision into the abdominal wound, thus protecting the peritoneal cavity from further contamination. Deep, interrupted catgut sutures are placed at intervals of 1 cm.

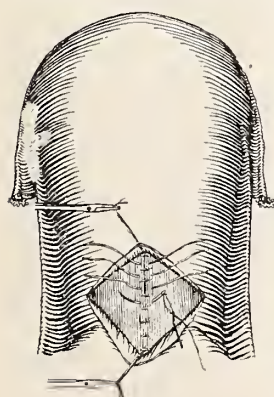


Fig. 8

These pass through the muscle wall down to the endometrium. They are not tied at this time, but the ends are clamped with hemostats. After the introduction of these deep sutures, the hand is again passed into the uterus, between two of them, and the placenta is separated and removed. By following this technic we wait for the uterus to contract well before separating the placenta. If hemorrhage from the placental site should occur, the wound may be closed in a few seconds, as all of the deep sutures have already been placed. See figure 7. While hemorrhage from the placental site seldom occurs in a classical cesarean section done early in labor, the opposite occasionally is true when the operation is performed late in labor, and the uterus is fatigued. A second series of interrupted sutures completes

the closure of the uterine incision. These are inserted midway between the deep ones and pass through only about half the thickness of the uterine wall. Figure 8. The upper flap is now brought down and anchored by several catgut sutures. Figure 9. The bladder reflection or lower flap is then brought up over the upper one as shown in figure 10, thus completely peritonealizing the wound in the uterus. In a short time these flaps become adherent and our wound is perfectly sealed.

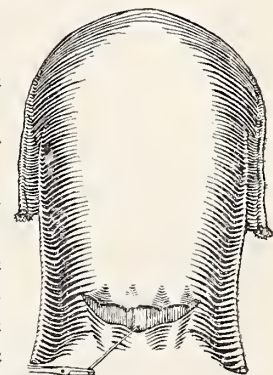


Fig. 9

To my knowledge, this operation has been done 150 times by a number of different men throughout the country. I have studied the detailed records of more than 100 of these cases and shall give you a synopsis of this study. In somewhat more than two-thirds of the patients, the elective time for operation had passed and the classical procedure therefore was contraindicated either because the patients had been too long in labor or the membranes had been ruptured a long time or many vaginal examinations had been made. In spite of this fact only four of the mothers were lost. A mortality of slightly under three per cent.

The post-operative convalescence in most of these cases was accompanied by somewhat more morbidity than is usually observed after an elective classical cesarean section. The increased temperature no doubt was due to the fact that our dissection in the two-flap, low incision cesarean section is more extensive and leaves a much greater area for absorption. In these patients who were infected, the clinical course was similar to that of an ordinary puerperal infection, a marked improvement frequently being observed about the seventh day after operation when pus usually was observed in the lochia or draining from the lower angle of the abdominal incision. Our explanation of this occurrence is that the infected uterine wound breaks open at this time and instead of draining into the peritoneal cavity, discharges the puerulent material either through the cervix and vagina or through the lower angle of the abdominal incision. One of the

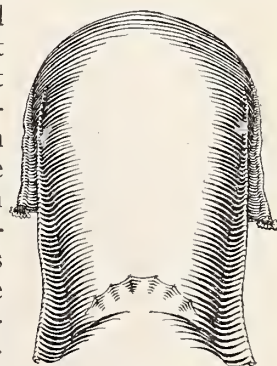


Fig. 10

striking observations made in this study was that a fairly large number of the patients in whom infection was anticipated, had a perfectly normal convalescence.

While this is all together too small a series to demonstrate conclusively the value of this operation, we believe that it is much safer than the classical technic when our cases are potentially infected. If the results in a larger series are equally as good it should be preferable to hystorectomy since it does not call for the sacrifice of the uterus and thereby avoids sterilization and premature menopause.

20 LIVINGSTON ST.

DISCUSSION

DR. WALTER W. MANTON Detroit: Much as I enjoyed Dr. Beck's description of the procedure, I do not think he has given the operation all that it deserves, for it gives us an opportunity to establish drainage. That drainage can be established through the vagina from the cervix down, or from the lower ends of the wound. The larger part of this sepsis, which is not of virulent type, the streptococcic type, occurs rather late, after the fifth day, and at that stage of the game the uterus is so far down that if pus is discovered in the wound, drainage can be easily established, much to the benefit of the patient. I have had one patient that I have drained in that direction, and another that I have drained by opening up the cervix.

The ease with which one can establish drainage in this type of sepsis, where the infection is perhaps largely augmented by the staphylococcic infection which you find locally, makes the procedure extremely valuable.

DR. GEORGE A. KAMPERMAN, Detroit: We have been looking for some sort of a procedure having a sanitary packing and means by which these cases can be delivered. In consultation work these cases are constantly presenting themselves. The patient is having a hard labor and does not come along well, and the attending physician makes more examinations than he should, or more than he would in a normal case. In a normal case he makes one examination and finds things coming all right and waits. If it does not come along fast enough he gets worried and makes frequent examinations. The result is that the cases which should be kept clean are probably examined most often. Cases are always coming that have been in labor for a long time and have been examined often. This is no criticism on the attending man, but simply the facts. To overcome this a great many procedures have been brought out. For a long time we were taught not to do a cesarean section, but to do a craniotomy and deliver in that way. This operation on a living child is not a pleasant procedure and has many objections. Then we all tried the extra-peritoneal operations, but they are so difficult that it practically puts them in the prohibitive class. It is almost impossible an extra-peritoneal operation and remain really extra-peritoneal. Those most enthusiastic admit that in probably 40 per cent of the cases they open the peritoneum after all.

My interest in this operation came when I was attempting to do an extra-peritoneal operation. I had a patient who had had a long labor. There had been two attempts at forceps delivery and the fetus was apparently in good shape. We attempted an extra-peritoneal operation but before we knew it had to open the abdomen rather widely. Then having done that we proceeded to the operation Dr. Beck

has described today. I think the fact that apparently he can deliver those cases much more safely than before this procedure was suggested is one of the greatest contributions to obstetrics that we have. This has always been a problem—how to deliver the patient who has probably been infected. I have been trying to think how many of these operations we have had, and I could think of six that I have delivered in this way. In the first case I delivered the head with forceps because I thought that was necessary, but in the other five cases the forceps were not used. After the second case, we did not even pull the obstetric forceps out of the bag, because there was no difficulty in delivering the head. I think I have had one case in which cesarean section was done and about five days later the patient ran a very septic temperature which subsided with the discharge of pus from the vagina and the temperature became normal.

When we look at the doctor's charts we cannot conceive that these cases could have been delivered by the ordinary cesarean section with approximately anything near the same results. For that reason I must admit that I am very enthusiastic over the procedure. Time alone will tell its real value, but I think it is one of the most useful things suggested for a long time.

DR. REUBEN PETERSON, Ann Arbor: I arise to confirm what Dr. Kamperman said. It is rather presumptuous for one who has had so few cases to speak of this operation. Still, I have had enough to show the advantages of the procedure. I have had about as many as Dr. Kamperman, six, or eight. Dr. Kamperman has said the obstetrician has been up against it in operating through the abdomen in infected cases. I think we should also remember that the mere rupturing of the membranes is also a great source of sepsis, even where no vaginal examination has been made. So I agree with Dr. Kamperman that this procedure is a great advance and I hail it for my clinical work.

I was particularly interested in listening to Dr. Beck's discussion because I have been wondering whether I have been fortunate in the technic which I have employed. The possibility of post-partum hemorrhage, of course, must always be borne in mind after cesarean section, but after you have had none, after a great many sections, you do not, perhaps, give it as much thought as you should. Out of about one hundred and twenty cases he has had two deaths from post-partum hemorrhage. In the classical cesarean section, I have never used interrupted sutures. I have always used the continuous suture because I thought a better approximation could be obtained in that way. If, however, this tired-out uterus is going to give two deaths in one hundred and twenty cases in the hands of experts, such as Dr. Beck and his associates, one has to consider whether the continuous suture should be employed.

I discovered the same thing that Dr. Beck brought out about delivery of the head. We had the forceps ready in the first one or two operations and then found out that by applying pressure on the head, it popped out very nicely. I think the technic need give no trouble to anyone who is accustomed to the classical cesarean section. We do not use the scissors, but have used the knife just as in the classical cesarean and have had no difficulty in making the incision large enough to extract the child. In the last one or two cases we have been experimenting with the pubo-cervical fascia, making the incision to the right of the midline and then pulling it outward toward the left, then making the incision through the uterus, down in the median line, extracting the child and in sewing up suturing the fascia over the wound, giving practically three layers in-

stead of two after the peritoneum is closed. I do not know how it will work out. The great advantage, after all, is where the patient is brought into the hospital or where you are called in consultation when the woman has been in labor, with probably many attempts at extraction, and you feel sure that the woman is infected and yet you can by this low operation secure a live child. This is one of the greatest advantages, it seems to me, that we have had for a good many years, for the obstetrician is certainly loath to destroy the living child, and yet he knows the great dangers of the classical cesarean operation in this particular class of infected cases. I can only congratulate Dr. Beck upon working out this operation and giving it to the American profession. It makes no difference to me whether somebody described this operation first. It is the man who works out the operation and puts it where we can profit by it who should have the credit. So far as I am concerned, I shall always associate the name of the low cesarean section with Beck, who should have our sincere thanks for appearing before this section.

DR. H. H. CUMMINGS, Ann Arbor: I enjoyed the paper, and have profited by it, I am sure. I visited Dr. Beck and expected to see him do some of the operations, but all of the babies came normally while I was there so I was unfortunate. He showed me a list of eighty-two cases and asked me to select the ones I thought could be handled by classical cesarean section and if I remember correctly I selected eight out of the eighty-two.

As I mentioned this morning, he has shown that this operation does give us more leeway. I think that with these borderline pelvic contractions we need not hesitate to rush in and do a cesarean section. We can give them a fair test of labor, even though the membranes do rupture, and especially is this valuable in those cases that have had attempts at delivery and vaginal examinations.

I think we all appreciate what Dr. Beck has done and that we will all try this procedure in the right sort of cases.

DR. ALFRED C. BECK, Brooklyn, N. Y. (closing): I wish I could be as enthusiastic as the various men who have discussed the paper. I am not deceived by these figures. I think they are altogether too good to be true.

In regard to drainage, we used to put a clamp down through the wound in some of the cases where we thought pus was present in the anterior parametrium and pus would drain out, just as the doctor suggested. We do not do this now, because we have found that in practically all of the cases drainage is established spontaneously. There is such a short distance for the pus to dissect that it will find its way out through the lower angle of the wound through the cervix into the vagina.

In this connection I have thought of extending my dissection between the bladder and uterus down into the vagina, but I have been afraid that if a case were not infected, I would surely infect the anterior parametrium through the drain. I am undecided as to whether I am going to do this or not.

Dr. Peterson's remarks regarding post-partum hemorrhage do not apply in my personal cases. None of my cases have died from post-partum hemorrhage. The cases that died from hemorrhage were operated upon by men who do not suture the uterus as I do. I think this is a good point in the technic.

Dr. Cummings brought up a good point when he said that all the babies were coming normally when he visited us. Since we have been doing this operation we have been doing less cesarean sections than formerly. Now we find that many cases in which we

formerly were afraid to give the test of labor and resorted to cesarean section deliver themselves spontaneously.

CHAIRMAN'S ADDRESS—PEDIATRIC SECTION

F. B. MINER, M. D.
FLINT, MICH.

Fellow Pediatricians:

I am indeed happy to call to order the first session of our section. If my memory serves me right, this is the first time in the past eleven years that more than three papers have been devoted to the care of the infant and child at any one meeting of the State Society.

The response to requests for papers has been very gratifying, as is also the attendance this morning. The co-operation of you men last year in signing the petition was splendid, and at this time I tender to you my sincere appreciation.

As a section, we made our initial bow into the affairs of the Michigan State Medical Society yesterday in a most auspicious manner. We had one paper in the symposium presented at the joint session with the surgical and medical sections. There were five papers, all given by eminent men. The Pediatric Section was represented by Dr. O. P. Kimball of Cleveland, who read a paper on "The Prevention of Simple Goiter in Man," which proved to be the definite paper in the program of the afternoon; showing clearly how he and Dr. Marine had worked out a definite method of prevention of simple goiter, through prophylactic treatment of children.

I anticipate that within a few years, we shall see this section one of the largest in the State Society. There is and should be a growing interest in the practice of Pediatrics.

The appalling condition of forty per cent disability in our drafted youth for war service five years ago was an exhibition which challenges our best thought and consideration as pediatricians. This eye-opener brings no degree of satisfaction or gratification to this branch of medical practice, rather it spurs us to greater activity and better organization. Now by the grouping of all interested men throughout our state into this section, I anticipate, will work out in time a standardization of methods in prophylaxis and treatment of childhood maladies.

There is one advantage in being the first chairman—the section has no precedent in respect to a chairman's address. This is not the usual classical essay on some scientific topic. We have these in our program. I wish to bring to this section a proposition extraordinary—

that is, something in slight departure from the usual procedure of former sections of our Society. Now that we have a section, I do not feel fully satisfied to have it a mere reading circle, or a pooling place to exchange ideas. There is so great an educational problem in pediatrics, both along prophylactic and therapeutic lines, that it seems to me this section should be the mentor of all things pediatric in our state.

The laity have two distinct habits these days—one of organization, every person must belong to some club, society, or what not, and the other is that of listening to public speech. There is a growing demand for medical knowledge. The organized lay society or club in some instances, anticipate our feeble individual efforts. They are one leap ahead of us in all welfare work. In this enthusiastic clamor to get something, and to learn how to do something, the conservative factor in our profession is not, as a rule, consulted. The popular talker is often times one trained along lines a bit more socialistic. He or she may be entirely unacquainted with private house to house practice, and in fact, may be one entirely outside of our profession. Their viewpoint is different and does not always meet the full confidence of the profession. There no doubt would be a wide degree of divergence in the welfare program outlined by some certain Public Health Department organizations, and that proposed from this section. The former tends to group all classes, rich and poor alike, about a unit or medical center to be cared for by a few who are anxious to make a showing and establish brilliant records. Whereas this latter group would tend to improve and standardize pediatric practice through channels of the entire profession.

Since the dissemination of medical knowledge by public speech seems to be a necessary procedure in our modern progress, I firmly believe this section should take a guiding hand in formulating a state-wide pediatric program for both the layman and the physician.

We will have to admit that the practice of pediatrics in our profession is rather haphazard. Every conceivable concoction of food is tried out on the unfortunate bottle fed infant, the same is true in the treatment of the under developed and pre-tuberculous child, also the beginning goiter receives a great deal of manipulation and a large variety of medicaments, and the nervous and mentally abnormal, as well as the orthopedic children, are neglected. I believe the profession will welcome suggestions from this section of representative pediatricians of the state. For it will strengthen their individual service and practice.

A solution of this problem I could not see

prior to the convention. But since counselling with a number of you after the meeting of yesterday, I feel that we can arrive at a solution by an organized effort in this section. So I am going to propose that we organize a committee of five together with the officers of the section as members—ex-officio—to be known as an advisory committee of the Pediatric Section of the Michigan State Medical Society, whose duty it shall be:

To formulate and offer to the profession of the state—a simple, standardized method of infant feeding; a method of procedure and treatment in the prevention of simple goiter; an outline for the care of the under-nourished and pre-tuberculous child; and also some suggestions for the care of the nervous and mentally deficient children. It is also suggested that we request representation in the program of the new proposed University extension course of Public Health Education.

I hope this plan meets with your approval, and would suggest that we take the matter up for discussion at the business session this afternoon.

FRIDAY, JUNE 9—AFTERNOON

The meeting was called to order by Chairman Miner at 2:15 o'clock.

Dr. Thomas B. Cooley, Detroit, was elected chairman for the ensuing year.

It was moved by Dr. Guy L. Bliss that the chairman appoint an advisory committee of five, the chairman and secretary to be ex-officio members, and of which Dr. D. M. Cowie is to be chairman, to consider the proposition contained in Chairman Miner's address. And further, that this committee have authority to act for the Pediatric Section.

The motion was seconded and carried.

The chairman appointed to act as such committee the following named members: Dr. D. M. Cowie of Ann Arbor, chairman; members, Drs. Guy L. Bliss, Kalamazoo; F. J. Larnard, Grand Rapids, D. J. Levy, Detroit, F. B. Miner, Flint; ex-officio members, Drs. Thomas B. Cooley, Detroit and Lafon Jones, Flint.

At the close of the session the retiring chairman said:

Two years ago, while attending the meeting of the Society at Kalamazoo, I sat in the medical section and there was not a single paper on pediatrics. My extreme disappointment prompted me to present a resolution providing for the establishment of this pediatric section. This afternoon I am more than repaid. Last year I think there were three papers on pediatrics and those were printed in *The Journal*; but here today we have contributed to our State Journal and to the medical profession of Michigan, which is largely composed of general practitioners, ten papers. I consider this a

splendid service to our own profession. We cannot tell how many kiddies this is going to save during the coming year. It is far reaching. I certainly feel that the interest shown today demonstrates the section's place in our State Society. It started out with an attendance of 26, which gradually increased to 35. So the new section has been born, and I prophesy for its future great success. I thank you for the interest which you have exhibited today and for the splendid papers which you have contributed. I now declare this section adjourned.

HEART MURMURS*

JOHN L. CHESTER, M. D.
DETROIT, MICH.

Most of the older professional men will remember with me when the detection of a cardiac murmur instantly suggested itself as a valve lesion, and automatically following on that diagnosis came the secondary suggestion of prescribing digitalis. It was the ultimate in medical knowledge and treatment so far as the human heart was concerned. Now, we have learned to differentiate between murmurs, and in present day practice we only prescribe digitalis in cases where digitalis is the remedy.

We have progressed in the art of diagnosis, and I cannot stress too strongly the sumptuous importance of an accurate diagnosis. A definite knowledge of the valve or valves involved must be acquired, in order to prescribe proper treatment, and not only that, but the correctness of the diagnosis will be a valuable aid in forming a more accurate estimate of the prognosis as to life and health expectation.

I cannot stress too strongly the dangers attendant on a faulty diagnosis where the heart is concerned.

Consider well the effect on the patient's mind and general deportment. The seriousness of error in diagnosis cannot be over-estimated. Many there be who go through life losing much of the joy, and evading most of their potential usefulness because of a heart disease that does not exist.

The patient's mind being directed toward his heart, and it is very easy to so direct it, he conducts his every day affairs and exertions, yes, shapes his very destiny accordingly. How very hard it is for that patient to subsequently draw his attention away from his heart.

The business of life insurance is based on statistics—on incontrovertible facts—and in the assembling of such data as is requisite to that

business, the most exhaustive research is necessary. Heart disease interests insurance companies, very much so, but more especially as to its prevalence and effect on longevity and mortality. One of the largest insurance companies in this country has given out to the medical profession and to the community at large, some very pertinent facts bearing on heart disease.

Over two million persons in the United States suffer from serious heart disease.

Two per cent of the prospects examined by insurance companies are rejected because of serious heart defects.

Two per cent of industrial workers are found on careful examination to be the subjects of serious heart defects.

One and one-half to two per cent of the children examined in the schools show serious heart defects.

Under 25 years of age organic heart disease causes as many deaths as typhoid fever.

Between 25 and 34 years organic heart disease causes as many deaths as lobar pneumonia.

Between 35 and 44 years organic heart disease causes more deaths than Bright's disease.

After 45 years organic heart disease shows a higher death rate than from any other cause.

This seems to be age of campaigns—campaigns of diverse kinds and for diverse purposes. We have health campaigns militant—against cancer, tuberculosis and the so-called "flu." In organic heart disease we have a condition equal in importance to any of these, and while they have been attacked vigorously and with conspicuous success, the control of heart disease has scarcely been attempted. Generally speaking, the onset of heart disease, if properly recognized, can be arrested and permanently controlled.

I venture to say that organic heart disease is in itself a field of the first magnitude for medical conquest.

Heart disease has no respect for age or social position. It is to be found in increasing numbers in all walks of life, and it comes to me very forcibly that this land of ours is peculiarly adapting itself to the propagation and encouragement of chronic heart disorders.

Our hustle, our mania for speed and still more speed, our intensively strenuous business rivalries and efficiency—the very qualities that have made us great among the nations, tend to create, in fact, do cause heart disorders among our people. We live the strenuous life, but we are getting to the point where we are overloading the wire.

The old adage that "prevention is better than cure" is only too true. Cut off the evil at its source. Remove the cause.

Think what the life of a heart cripple means. It means in many cases, limitation of education. It means the enforced curtailment of the capacity for work, play and enjoyment. It

*Read before Section on Medicine, M. S. M. S., Flint, June, 1922.

means suffering, often a lifetime of it. It means serious economic loss to the individual and to the community. It may be, and it often is, the difference between proud independence and servile charity. Measures which promise to obviate or correct damage to the heart ought to have a particular significance and interest for the general practitioner, who alone can see the early stages of disease and recognize the circumstances that favor or cause its onset. He is very favorably situated for the study of heart disease, inasmuch as he can observe the response to effort which is the only means by which the efficiency of the heart can be appraised. In the promotion of effort, artificial tests and graduated exercises have their uses, but it is by the skillful interpretation of the patient's experience when the heart is called upon to do its usual work that a real appraisal can be made.

A painstaking and systematic examination of the heart of every patient should be made, from day to day when in a serious condition, and occasionally after recovery. For the purposes of an early diagnosis and prompt systematic treatment, the more recent methods of diagnosis, such as the use of the X-ray, the polygraph and of the electro-cardiograph, yes, even the use of the stethoscope, all have their places and are very helpful, but should be regarded as supplementary to and not as superseding the ordinary methods of examination, to confirm as it were, what has already been learned by a careful history, palpation, inspection and percussion.

The immediate recognition and solution of the whole problem is in the hands of the general practitioner. Not so very long ago a cardiac murmur was classified by its bearing on the body posture, its position in the precordial area, while its character in auscultation, intensity, direction of transmission, and time incidence in the cardiac cycle, were all factors to be considered for the purposes of definite classification.

Now, it is more important to have definite knowledge of the size of the heart, history of infection, especially of rheumatism, intensity of second sound in second left interspace, while the reaction of the heart to exercise is vital.

These criteria do not solve every diagnostic difficulty when a murmur is present, but they are very useful as additional aids in barely enlarged hearts with a history of repeated and recent rheumatic attacks.

Strictly speaking there is no satisfactory classification of heart murmurs. MacKenzie, for a purely working basis, classified murmurs as physiological, functional and organic—to

these F. N. Wilson adds another—accidental murmurs.

Physiological murmurs are of little consequence, and in general they gradually disappear, just in proportion to the degree of maturity into which the arteries, the myocardium and the valves develop. They are not to be found in enlarged hearts with apex to or beyond the nipple line, where the sustained rate is above 90, and caused by no other apparent lesion. They are never diastolic or accompanied by premature contractions, or failure to respond to effort.

Functional murmurs have slight bearing on the cardiac state when careful tests have established a sound cardiac system. They are systolic in time and variable in intensity, loud after rapid exercise, soft and often absent altogether after rest. After effort they may be heard over most of the precordium, even at the apex, and up in the vessels of the neck. They are at times accompanied by palpable thrill and are very harsh in complete expiration. They are not associated with cardiac enlargement, nor are they transmitted. They are common over the cardiac base in second left interspace. Apical functional murmurs are very variable, they are short blows, very common in rapid hearts and usually disappear after rest or upon recovery.

The exact cause of functional murmurs is vague. They are common in young adults, and may be caused by a recent attack of acute rheumatic fever, chorea, sore throat, or a positive recent infection inducing cardiac fullness or cardiac enlargement. Functional murmurs are always systolic, and when detected in the pulmonary area, without cardiac enlargement, are of little importance.

An apical systolic functional murmur should be differentiated from the murmur caused by mitral insufficiency, where the second pulmonic sound is always accentuated. On the other hand an aortic systolic functional murmur heard at the base, should be differentiated from the murmur caused by aortic stenosis, which shows absence of second aortic sound with *pulsus tardus* or *rotundus*. Organic murmurs are practically always diastolic. There are two important diastolic murmurs—the characteristic diastolic murmur at the base of the heart in aortic insufficiency and the characteristic later diastolic, or rather pre-systolic murmur at the apex of the heart in mitral stenosis.

Probably too little attention has been paid to the so-called accidental murmurs, constituting as they very frequently do, symptoms of weakness of the heart muscle. Some authorities explain their origin as a systolic aspiratory action of the heart on the lungs, others attribute them to a fall in blood pressure, while I have noted

them as being caused by functional disturbances of the heart muscle. Accidental murmurs are always heard more clearly when the patient is lying down. This is due to the fact that in pathological conditions in which the normal tonicity of the heart is decreased when the patient is standing, that is to say, when there is a certain tension of the whole muscle tone, the heart tonicity is strong enough to produce a rapid and sufficiently energetic contraction of both ventricles, so that the normal first sound is produced, but that when the patient is lying down the tone of the heart muscle on account of the physiological decrease in tonicity, sinks below the level at which the first sound is produced. This pathological decrease in tonicity is in fact myocardism. If this murmur is heard when the patient is lying down but not when he is standing up, it can be made to disappear by compression of the abdominal aorta, or even by the lifting of the legs, because the rise in pressure thus caused brings about a complete contraction of the ventricle. Strengthen the heart muscle and the murmur will disappear. One authority (Falkenhausen) states that beyond all doubt the accidental murmurs of the heart are caused by the pulmonary artery lying abnormally near to the sternum. This is made possible by the fact that the heart lies especially close to the anterior chest wall, which condition often goes hand in hand with a median position of the heart. The mechanism of the murmur consists mainly of rubbing of the pulmonary artery, or of overlying portions of the lung against which it presses, against the anterior chest wall.

For the purposes of diagnosis in diseases of the heart, a definite knowledge of the various cardiac murmurs is imperative. Murmurs have no value in showing how long a valve lesion has existed, nor are they a reliable sign in prognosis. The behavior of the cardiac muscle is the all important factor.

In diagnosis the reliable findings are—diastolic or pre-systolic murmurs, definite permanent cardiac enlargement, heaving apex beat, definite well marked thrills, auricular fibrillation, and heart block not due to drugs. These are the late symptoms.

A diastolic murmur is usually a constant unchanging murmur and has a typical exhaust blowing sound. It is best heard over the base of the heart in second right interspace, and along the left border of the sternum. At times it is best heard at apex, though it may be heard over any portion of the precordium. It usually comes from the left auricle and is conveyed to the apex by the blood stream.

The early diastolic murmur over the base is due to aortic insufficiency unless congenital heart disease is present, and in very rare cases

may be due to congenital pulmonary insufficiency.

Diastolic murmurs mean one thing—organic heart disease, generally of the valves, and the degree of cardiac enlargement is an important factor in determining the true significance of the murmur. It is seldom loud, in fact it is a diminuendo murmur, strictly limited in area of audibility, and very common in early attacks of rheumatism.

An aortic diastolic murmur is reliable evidence of aortic insufficiency, if confirmed by a water-hammer pulse, throbbing carotids, capillary pulsation and a pistol shot-like sound in the femorals. With these symptoms absent, it may be the temporary result of extreme anemia, or it may even be of exocardial, especially cardio-respiratory origin. If this murmur is quite distinct and backed by a history of acute rheumatism in young individuals, or by a history of syphilis in a person of 35 or over, the diagnosis may be made on the murmur itself, as a distinctly secondary result of cardiovascular-renal disease, syphilitic aortic lesions or exophthalmic goiter.

Systolic murmurs may, or may not, indicate cardiac disease. They are audible over the veins of the neck, also at the apex, and are probably due to lessened viscosity of the blood in anemia. Transmission is by wall of the vein and by the blood stream. They disappear on recovery from anemia.

The most common systolic murmur is the cardiorespiratory murmur heard over the precordium, mostly at the apex. This, and the pulmonary systolic murmur heard in second, third or fourth left interspace, as a soft or harsh bruit, are absolutely insignificant. But the pulmonary systolic murmur, if accompanied by a thrill, is due to pulmonary stenosis. Where there is no cardiac enlargement, or cyanosis, or impaired muscle power, an aortic systolic murmur means nothing.

An apical systolic murmur is also very common and is produced during systole, when the ventricles impinge against the thoracic wall and transmit the vibrations from the auricle. It varies in loudness, though in its essential character it is similar in most cases. When faintly heard it disappears after rest, but usually returns following effort. When loud, it is audible over large thoracic area and indicates a damaged heart. This symptom is common in early attacks of rheumatism. The aortic systolic or aortic diastolic murmur is never heard in the first attacks of rheumatism and very rarely in children under 12 years of age. These murmurs are probably transmitted direct to chest wall from the auricle, dilated aorta being the chief factor in production. The pulmonary murmur is transmitted to the chest wall by di-

lated infundibulum and probably also by the blood stream and tension of the muscular tissue. It is less frequent but quite as loud as an apical murmur. It is always systolic and accompanied by systolic pulsation in anemia. The murmur disappears on recovery.

Systolic murmurs are frequently misinterpreted, and if the murmur is pulmonary systolic it is negligible in ordinary cases.

About 70 per cent of systolic murmurs are not due to mitral insufficiency. The most common of these murmurs are of cardiorespiratory origin and vary in intensity and quality with change of posture or phase of respiration. A frictional apical systolic murmur in pericardium may be due to roughened valve cusps or relaxed mitral ring or old inflammation.

In congenital mal-formation, a pulmonary systolic murmur so loud and widely diffused that is exceptional character is immediately recognized indicates organic disease. In anemia an accidental or functional aortic systolic murmur is common in connection with the anemic status. When you find a loud rough aortic systolic murmur, accompanied by a thrill, weak or absent aortic closure, left hypertrophy, pulse of "plateau" variety, and when these symptoms are present in an elderly person, a diagnosis of aortic stenosis is permissible. Aortic stenosis is however, a very rare lesion.

The presystolic murmur comes from the left auricle and is conveyed to the apex by the blood stream, the additional factor consisting of hypertrophy of the left auricle, which acts as a resonator. It is frequently heard in cases of adherent pericardium, and in cases of aortic regurgitation it may even simulate the "Austin-Flint" murmur—a pre-systolic murmur in aortic insufficiency. The pre-systolic murmur can be heard in chronic Bright's disease and in a heart displaced by enlarged spleen. In character it is a rumble, definitely crescendo in character, becomes louder when approaching the first sound, and ends abruptly with the loud snappy first sound. The intensity of the murmur may be increased by a change in the patient's position or by the use of amylnitrite inhalation.

Pre-systolic murmurs are usually trustworthy, but at times extremely difficult to distinguish from one another. They are caused by mitral stenosis.

Many murmurs heard over the precordial region are organic in origin, but there are a certain number however, with no organic basis, and autopsy fails to reveal their etiology. Murmurs can originate from three points—in the portion of the lung separating the heart from the chest wall, between the heart and the lung, and in the heart and great vessels. Extra-

cardiac and cardio-pulmonary murmurs occur usually on the left side. Experimentally on animals they may be made to disappear if the lung is pushed away. Occasionally these murmurs may occur at the root of the great vessels during a diastolic tug. Pericardial friction rubs may sometimes simulate a murmur, but this should be easily eliminated by careful observation. Hemic murmurs are soft and blowing and follow the course of the blood vessels.

It is possible to have non-organic murmurs originating in the heart itself and they also may occur in the larger blood vessels in hypertension or in anemia. Occasionally they are heard over the veins, in which case they always occur in the diastole. All these non-organic murmurs are heard most often in children and very old people—the two extremes. The diastolic murmurs are heard most often in the third or fourth interspace. They vary and are very rare. The systolic murmurs are liable to be heard over any portion of the heart.

To come to the practical side of heart murmurs. The first sound is supposed to be due to vibrations of the walls of the cardiac cavity, and occurs in the first third of systole. This first sound may be softened or obliterated by defective action on the part of the ventricle, or by valvular damage, and it may be accentuated by hardened mitral stenosis. In propagation it follows direction of the current which produces it or in which it occurs. The second sound is supposed to be due to closure of the pulmonary or aortic semilunar valves, and occurs in the first part of the diastole. It may be enfeebled by structural vascular alteration or by diminished tension (anemia, insufficiency) while it may be increased by higher tension (aortic sclerosis, syphilitic hardening). The pulmonary second sound may be accentuated by increased pulmonary pressure. In propagation the second sound also follows the direction of the current which produces it or in which it occurs.

Each pair of sounds is separated by a longer interval or pause, diastolic in time. A short pause occurs between first third and last part of last third of systole. Anything happening before this pause is systolic in time, while anything happening from beginning of second sound to end of long pause, is diastolic in time.

In many cases a venous murmur may be produced or made more prominent in Mohrenheim's fossa by holding the arms in the upright position. This murmur is heard also in the first and second intercostal spaces, and at the same level over the sternum the murmur becomes more distinct and occasionally more musical in character. It is caused by a slowing of the venous blood stream and serves as a diagnostic symptom of the function of the right auricle.

It is found chiefly in children and anemic women.

A Canadian, Vipond, has given to the world a new method of examination for heart murmurs. It consists in thorough auscultation over the eyeball with an ordinary Bowles stethoscope. This orbital murmur, first detected accidentally, is found in several different types of cardiac disorders, but to be heard distinctly the heart muscle must be in a fair tonic condition, so that it may be able to carry it to the terminal ophthalmic artery.

A common cardiac irregularity is the extra systole, which is unimportant when occasional, but when frequent and accompanied with pain or breathlessness, is sure evidence of myocardial trouble. When foci of infection, such as infected tooth roots, are removed, this irregularity very often disappears.

Symptoms of heart disorders are not infallible in so far as there are many cases where examination discloses what would apparently be real evidences of valve lesions, when as a matter of fact, the real trouble is to be located in some other part of the anatomy. In this connection I have been particularly impressed by the statement of Dr. Samuel E. Earp in *Med. Rec.*, 100:410 of September 3rd, 1921, and quote it herewith:

"It is reasonable to conclude that any pathological condition of adjacent structures, may retard the heart's action. The vessels of the heart independent of the changes which take place in the heart substance, may produce certain cardiac symptoms that may seem to indicate an organic heart lesion in the heart itself. It is outside influence, some pathological condition at a remote part of the body, that often jeopardizes the condition of the heart more than a disease of the myocardium itself. Hence we often fall into error by assigning to the valves that which belongs to the remote organs. By actual demonstration it is evident that toxic conditions from any source, certain conditions of the nervous system, imperfect mechanics of the blood supply, pathological or otherwise, acidosis, acute infectious diseases, including rheumatism and local infection, may produce a condition of the myocardium which is often characterized by murmurs, when there is no organic lesion of the valves, and which very frequently will respond to proper treatment."

The World War presented a most fertile field for medical research, new diseases being definitely recognized, necessitating new and startling remedies. In the empire of the heart a supreme discovery was the Effort Syndrome—a cardiovascular functional symptom complex, frequently causing disability. During our Civil War this was first very vaguely described as a clinical entity by Harthorne, later termed by DaCosta as "irritable heart of soldiers." It was intensively studied by Thomas Lewis in the World War, who described it as neuro circulatory asthenia. It was classed as

such in the American Expeditionary Forces, and termed "Disordered Action of the Heart," "D. A. H.," in the British Service.

In the clinical aspects there is pain, usually just above and to the left of precordium, though the position may vary from day to day. Pain in the chest is the most frequent symptom, a pain that is sharp, sticking and fleeting. In about half of the cases, pain is associated with more or less skin hyperesthesia. There may be precordial tenderness, while breathlessness is a common, and often the sole complaint. This symptom complex interferes absolutely with normal performance of duty. In the Effort Syndrome the respiratory rate may be elevated to 60-80 per minute, while it usually returns to normal when at rest or after relief from effort. There is little cough or expectoration, and nocturnal asthma is only to be found in the gassed cases. Giddiness is frequently detected, this combined with breathlessness and extreme fatigue. Muscular weakness is general, and very infrequently are there abnormal visual phenomena. When at rest palpitation may persist, and may even accompany an elevated pulse rate. There may be fainting without the loss of consciousness, a coarse tremor, rather a shake, involving the whole body, but this latter is not a valuable diagnostic guide. A most common symptom is profuse sweating due to hyperactive skin. The pulsation is often striking in the precordium, and may extend wave-like over the 2-3 intercostal spaces. The apex impulse is often felt to be specially forcible and gives the impression of a major thrust split into successive ill-defined minor parts. No thrill is felt, though on occasions a single sharp shock synchronous with the second sound is felt both at the apex and at the base.

It cannot be said with any degree of certainty that cardiac enlargement takes place in the Effort Syndrome.

In rhythm, regularity is invariably maintained. The heart beat is usually accelerated in rate and tends to be unstable in the same individual. According to one authority (Hume) the range is in 46 per cent of cases between 90 and 100, and in 26 per cent between 110 and 130.

Serrations in auscultations occurring in the first sound are different from the crescendo murmur before that sound, and there is a marked absence of accentuation of the second sound. In the etiology of the Effort Syndrome no racial predisposition towards its occurrence has been discovered, nor is it dependent on a specific infecting organism. There is little to substantiate a relationship to acidosis, and though there is some similarity in symptoms with those in Graves' disease, thyroid enlargement is invariably absent.

The Effort Syndrome is a long standing latent affection, requiring a stimulus operating in a manner not habitual to the individual and inciting cardiovascular reaction.

In diagnosing heart disease in children the case history is the most important point. The chances of incorrect diagnosis are increased if there is no history of rheumatism. As a matter of fact the majority of cases of heart disease in children is caused by rheumatism—some authorities put the proportion as high as 90-95 per cent. If a history of chorea, pharyngitis, tonsillitis, rheumatism, muscular and growing pains, primary endocarditis, or chronic nasal or middle ear catarrh, can be eliminated in children, the diagnosis can be easily made. Syphilis is not a common cause of heart disease in children, neither is myocarditis, but this latter if chronic, is generally caused by rheumatism. Endocarditis caused by infectious disease, is usually fatal in children, but if recovery occurs, the damage can usually be repaired with little resulting valvular deformity. Acute endocarditis in influenza is rare in children, but subacute endocarditis is quite common and with probable fatal consequence.

Acquired valvular disease is extremely rare during the first three years of life, uncommon up to the fifth year, and found five times oftener during the second five years. Statistics show that in children under 10 years of age acquired valvular disease is found in less than 1 per cent of them.

Heart disease in children is suspected by an irregular pulse and the presence of a heart murmur. Either considered alone is not sufficient to establish a diagnosis of cardiac disease. The most common form of irregular pulse is due to sinus arrhythmia, but this is a purely physiological sign of a normal heart. Irregular pulse may also be due to heart block, or to paroxysmal tachycardia, but these are extremely rare in children. Heart murmurs alone, as I have previously stated, do not indicate cardiac disease in children, and are generally due to an unstable nervous system, and are of uncertain diagnostic value. The heart readily dilates, especially in anemic and feeble children, and may cause physiological systolic murmurs.

In heart disease in children the diagnosis should be prospective in order to prevent actual and serious cardiac trouble.

In my opinion the value of heart murmurs has been overestimated. In diagnosing damaged hearts it is more important to know how much cardiac enlargement is present, what particular valve is affected, and what infection was the primary cause. As additional information on which to make a diagnosis, I consider the age and general nervous make-up of the patient,

the condition of the myocardium, the presence or absence of breathlessness and fatigue, all factors of supreme importance.

Murmurs are useful pegs on which to hang a diagnosis, but they are by no means the *sine qua non* in getting to the root of the matter where the heart is concerned.

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DISCUSSION

DR. JAMES S. BROTHERHOOD, Grand Rapids: I shall not attempt to add anything to the scholarly paper of Dr. Chester, because I would be accused of attempting to haul coals to Newcastle.

Dr. Chester has emphasized most thoroughly several facts. Every murmur of the heart that we listen to does not spell disaster to the individual. How often do we encounter families with children whose family doctors have told the mother to carefully watch the child as the child has a murmur. When that patient is brought to you the mother whispers in your ear, "Do not tell Mary she has anything wrong with her heart." As a matter of fact, a great many of these murmurs are of a functional character. In my own experience a number of them have disappeared when we have placed the children on a more healthful regime; then we have given the indi-

vidual patient a small dose of tincture of iron, a few drops, two or three times a day to correct certain disorders of the gastrointestinal tract, and above all, after a complete examination, have found out the possible source of infection which had given rise to this potential heart disorder. For instance, the removal of diseased tonsils, and later of impacted molar teeth. Then the question of the condition of the turbinates, minor troubles in the ear and elsewhere in the body should be considered as possible causes of the heart murmur.

Only recently there came to my attention several cases of bad tonsillar trouble, where for a number of years the patient had been told that he could not take an anesthetic; that he could not subject himself to an operation for the removal of the sources of infection. I find in a great many instances this is a fallacy, because with our knowledge of heart trouble today and with the careful use of gas and other anesthetics as they are administered today, there are very few individuals who cannot take sufficient anesthesia for an operator to remove possible sources of infection.

I well remember at a meeting of the American Medical Association, held in Chicago, years ago, Sir James Mackenzie spoke to a large group of internists and said, "Give me the man with a heart murmur, and that is the one I want."

When England was forced, as a result of the heavy draft made upon her, to replenish the ranks with men who on previous examinations had been refused on account of heart murmurs, on further examination these men went into the ranks and went through some of the most intensive battles of the war, and after they were treated for minor casualties they went back into the trenches again, and there are instances of men with bad mitral lesions who went through five battles. So Sir James Mackenzie stated that he was beginning to believe it was not so much a question of a heart murmur as it was a question of the heart muscle. That very point this afternoon has been emphasized by Dr. Mortenson, by Dr. Northrup, and by Dr. Chester. It is not a question of how much noise the heart is making but of how much work the heart is doing.

I have often wondered if some of the men who have been turned down by the life insurance companies because the physician found a murmur may not live to be the pallbearers at some of the funerals of their best physicians. These men have heart lesions; they take care of themselves, and he is a safe man who knows there is something wrong. As a matter of fact, I frequently tell patients they have a flicker at the heart. It may be a good thing. The older the flicker the better it is because the heart muscle produces that murmur. If it is a loud systolic murmur, it indicates that the heart muscle has some tone. It is the little soft murmur that gives the trouble, the one that we hear today and is absent tomorrow. We outline the heart and find a large area of dullness. The patient is short of breath; we do not hear a loud systolic murmur well transmitted. After all, it is a question of functional activity of the heart that determines whether the murmur is of any significance or not.

DR. WILLIAM F. ENGLISH, Saginaw: I want to congratulate Dr. Chester on his excellent paper. A noted pathologist in one of our universities a short time ago stated that the medical profession was getting down to educating nothing but diagnosticians, and the treatment of patients was nil.

I have listened to a number of papers this afternoon and was wondering whether any one of them would take up treatment. I have no laboratory results to present regarding the question of treatment, but Dr. Chester threw out one suggestion we ought to bear in mind. We heard

a great deal yesterday about preventing thyroid trouble in children. Dr. Chester has thrown out a suggestion regarding the prevention of heart trouble along the same line which is quite important.

Another thought that came to my mind very forcibly was the question of heart troubles during the war in the recent training camps. I heard an eminent surgeon say yesterday that men, fifty years old, began to take exercises and to do a whole lot of things, and as a consequence something might happen. I know lots of men who went into these training camps, physicians who were fifty years of age, in whose cases a diagnosis of myocarditis was made, with low blood pressure, of possibly a tendency to tuberculosis. These men had fat stomachs. Some of them went into training and developed splendid physiques; they lost their big stomachs and whereas their blood pressure was 150, it came down to 135. They could go on hikes of ten miles in the southern sun without trouble. It is a mistake to say that these conditions cannot be remedied. It is a mistake for a man to allow himself to pursue the course of least resistance to get a big stomach which is the biggest danger signal we have.

OPHTHALMIA NEONATORUM*

Report of 233 Cases at Children's Free Hospital

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DETROIT, MICH.

This paper is based principally on a series of 233 cases of ophthalmia neonatorum from the ophthalmic ward of the Children's Free Hospital between the time of the opening of the ward in 1910, to September, 1919. Many of the cases were under the care of Dr. Walter R. Parker, Dr. Ray Conner and Dr. Howell Begle, as well as myself, during that period.

The ophthalmic ward was built in 1910. Previous to that time there was no place in Detroit where cases of ophthalmia neonatorum could be admitted for treatment, and they were cared for in the homes as best they could be, or at the various hospitals in which they developed.

It is estimated that there are approximately 110,000 blind men, women and children in the United States. About one-quarter of this number need not have lost their sight, the causes being in a large measure preventable. These 25,000 persons by their blindness deprive the country yearly of about \$8,000,000 worth of productive labor. The maintenance of special schools for blind children is also costly. It takes far more to educate the blind than the normal child. Including the expense of institutions, library facilities, home teaching, the amount soon approaches millions. Ophthalmia neonatorum is responsible for about 25 per cent of the blindness in the various institutions and schools for the blind.

*Read before Section on Ophthalmology, M. S. M. S., Flint, June, 1922.

We have now various measures devised and in operation by the board of health for the elimination of this preventable cause of blindness, such as education, compulsory notification, punishment by law of offenders against properly constructed legal regulations, and compulsory prophylaxis. We have in this state a sub-committee of the American Medical Association, with a member in each county, for the purpose of teaching by means of illustrated lectures and literature the care of the eyes and ears in children, and part of this work is devoted to ophthalmia neonatorum.

While great progress has been made in the prevention of this disease, we still have a large number of cases, and the purpose of this paper is to emphasize the necessity of especially equipped hospital facilities for the care of ophthalmia neonatorum. Such facilities are available in the ophthalmic ward of the Children's Free Hospital in Detroit. The ward was equipped to handle 12 children with night and day nurses—carefully instructed in the care of the eyes and under the supervision of a trained supervisor. There have been as high as 10 patients in the ward at one time, during which five nurses were in constant attendance, alternating in eight-hour shifts. The vast importance of treatment in a ward especially equipped for ophthalmia neonatorum is readily seen from the statistics of Dr. Cheney in the state of Massachusetts in 1909. In 44 cases treated in the homes, 20 per cent of loss of sight, or one baby in every five became blind, while of 149 babies of the Massachusetts Charitable Eye and Ear Infirmary, all eyes were saved, in which the cornea was not already ulcerated on admission.

It is of prime importance to get the patients into the hospital and under treatment as soon as possible. The duration of the disease before admission to the hospital varied from one day in many cases to a month or more; the average case was admitted during the first week of the disease. The average length of time in hospital was 33 days.

One great difficulty in making definite bacteriological diagnosis has been the inability to cultivate the gonococcus successfully. Smears may show other gram-negative, morphologically similar diplococci, the most common of which is the micrococcus catarrhalis. The latter, however, grows on ordinary media while the gonococcus does not.

The gonococcus was found in 55 per cent of cases, which accords with the statistics of Derby, who found the organism present in 51.3 per cent of 149 cases at the Massachusetts Eye and Ear Infirmary. Stevenson collected 1,829 cases, 65 per cent showing the gonococcus. This is rather high, as other gram-negative organisms were not excluded. Eleven cases

which died of concurrent disease, two which were taken home against advice on the second day, and two doubtful cases of recurrence in old staphylomatous eyes, are not included in the percentages.

Corneal involvement was present in 29 cases. In 12 cases but one eye was affected, in 17 both eyes. Of the 12 cases with one eye affected, two in which the cornea was only hazy on admission, recovered without scars, six recovered with slight scars and four with bad scars of the one cornea. In all 12 cases the other eye was saved. Of the 17 cases of corneal involvement of both eyes, five in which there was only corneal haziness on admission, recovered with corneas intact, three recovered with slight scars only, in one case one eye was lost, the other eye saved with very slight scar. Four who were not admitted to the hospital until after three to six weeks' duration of the disease, became totally blind, three others died of concurrent disease soon after admission. Corneal involvement took place in four cases after admission to the hospital, in one eye only in three, in both eyes in the fourth.

Our statistics of corneal damage, namely 12 per cent, compare most favorably with that of others. Bartels, in 38 cases of ophthalmia neonatorum reports 10 eyes totally lost and four partially; in two cases both eyes lost. Morax had 18 patients out of 110, or 16 per cent, with corneal opacity more or less severe. Other figures of corneal damage are those of Groenow, 25 per cent of 41 cases; Haupt, 28 per cent of 45 cases; Jroener, 25 per cent of 62 cases; Druais, 25 per cent of 24 cases.

Harman found in a series of 231 cases of ophthalmia neonatorum of all degrees of severity, non-gonorrheal and gonorrheal cases combined, 13 cases of corneal damage, or 5.6 per cent. Of the 13, three were blind in both eyes and five were blind in one eye. In the present series there was loss of sight in one eye in eight cases, five of which had corneal ulcers on admission, the other three developed ulcers while under treatment in the hospital. There were six cases of blindness in both eyes in all of which the corneas were involved on admission. All these cases were two and one-half to six weeks duration before being brought to the hospital, and in only one of them was there a chance of saving any vision. In this case one cornea was still intact on admission but became involved very soon after and the vision was lost.

Omitting these cases in which ulceration of the cornea precluded visual result on admission to the hospital, there was no loss of vision on leaving the hospital in 201 out of 205 cases, or 98.04 per cent. In three cases, or 1.42 per cent, there was loss of vision in only one eye, and in

one case, or 0.48 per cent, total blindness resulted. Fourteen cases were monocular, in none of which the other eye became infected, a percentage of 6 per cent. The only prophylactic means employed were care and cleanliness in handling and instillation of argyrol three or four times daily in the unaffected eye. Glass protection shields were not used.

Regarding the *treatment* of ophthalmia neonatorum, prophylaxis is, of course, the first consideration. Irrigation of the eyes with warm boric or saline solution immediately after birth, followed by the instillation of 2 per cent silver nitrate solution will invariably prevent the disease. Some authors recommend a 1 per cent solution of silver nitrate or 25 per cent argyrol. Personally, however, I believe the stronger solution should be used.

The treatment to be successfully carried out demands the services of skilled attendants day and night for at least the first few weeks. The child's eyes should first be wiped dry, and warm saturated boric acid or normal saline solution used to cleanse thoroughly the conjunctival sac. This should be done by squeezing the warm fluid from pledgets of absorbent cotton frequently enough to keep the eyes free from pus. When the secretion is very profuse it may be necessary to irrigate the eyes every half hour, whereas, where the discharge is less, every two or three hours may be sufficient. The rule is to keep the eyes free from pus as far as possible without lowering the child's nutrition by disturbing its sleep too frequently or causing regurgitation of its food. Every hour in the severe cases a drop or two of freshly prepared 25 per cent argyrol is instilled. As the discharge becomes less the argyrol is cut down to every two hours, then three hours and eventually t. i. d. Undines and syringes are not used for fear of injury to the cornea and also because of danger of infection of the nurse's eye by splashing. The nurses must use special care not to touch the cornea, as the slightest abrasion is almost sure to result in ulceration and loss of sight. In case the argyrol apparently fails to check the free accumulation of pus, or there is much swelling of the lids, a 2 per cent solution of silver nitrate is carefully applied to the everted lid by the physician. Canthotomy is resorted to when indicated.

Argyrol is only a weak bactericide, and yet clinically it has surely a great value in ophthalmia neonatorum. One factor may be its high specific gravity, enabling it to float out the pus from the folds in the conjunctival sac. Also it has the added value of giving early warning of a corneal complication because of its staining the affected area.

Much harm may be done by the use of too strong or too frequent applications. Not only

is too frequent handling dangerous to the eyes because of possibility of corneal injury, but the general health of the infant may also suffer, and the resisting ability reduced in consequence. Premature or feeble babies need quiet, rest, and as little handling as possible. Treatment should never be carried out directly after a feeding or it may cause regurgitation.

We have tried out other forms of treatment, such as ethylhydro cuprine, protargol, etc., but in our hands argyrol has proved the most valuable drug in controlling the disease. The cases are not discharged until all inflammation has subsided, until two smears are negative.

One great difficulty in handling cases of ophthalmia has been the necessity of removing the infant from its mother. This has been overcome by supplying the child with breast milk at its regular feeding periods. As soon as the mothers are able they come to the hospital during the day, and their breast milk is given during the night. When breast milk is not available, artificial feeding is carried out.

There is probably no other ocular disease in which there is so great a difference in the severity of its course in the infant and in the adult, as there is in ophthalmia neonatorum. With proper care the infantile type, if taken early, almost invariably recovers, while the adult type, in spite of the best of treatment, rarely fails of corneal involvement and serious visual damage. Many hypotheses have been offered to explain this difference, greater resistance of the corneal epithelium of the infant, diminished virulence in the gonococcus, etc. Derby has offered the most likely theory, that the babies born of gonorrheal mothers are possessed of a certain amount of immunity. To prove this assumption he obtained blood from 23 gonorrheal ophthalmia cases for complement fixation reaction, but only two were strongly positive, three were weakly positive. In spite of this lack of positive fixation reaction in most cases, the mildness of the disease is best explained by the assumption that a certain amount of immunity, varying in degrees, is transferred from the infected mother to the child. This passive immunity is probably of short duration, but lasting long enough to influence favorably the course of the disease, in some cases possibly even preventing infection. The degree of immunity obtained may not be sufficient to produce a complement fixation reaction in the blood, though still sufficient to favorably affect the course of the disease. Its duration is probably too short to bring any influence to bear on the adult type, even if an infection had been present in the parents.

Very little has been said in the literature regarding the parents of babies with gonorrheal ophthalmia. The question of what to do re-

garding them is a difficult one. They are dangerous to the community, they have infected at least one child and may infect others. Their future children should also be protected. It is plain that our duty does not end with the care of the infant.

1001 DAVID WHITNEY BLDG.

DISCUSSION

DR. F. J. CADY, Saginaw: The Doctor emphasizes particularly the care of these cases in specially equipped hospitals with specially trained nurses, and under special supervision. This no doubt is excellent treatment and is possible in a city the size of Detroit, but I am wondering how it would work out in a small city, for instance, like my own. We have had very few cases there the last four or five years, and last year there were but 21 cases reported in the whole state of Michigan. That either goes to show that we had a very incomplete record of our cases, or that the physicians, mid-wives and nurses have been so trained that this condition is always looked after and therefore we have not so many cases.

In regard to the treatment of these cases, I am unable to add anything to what has already been given, with the exception perhaps of the use of mercurochrome. In my last year of internship we used this remedy in a number of cases with very satisfactory results. In all of our cases we were very positive that the duration of the disease was very much shortened. In my own practice, in mixed infections especially, I find mercurochrome in a 2 per cent solution is of great value. A routine which I think is good practice in all cases of a suspicious character is the injection into the conjunctiva of 10 per cent argyrol t. i. d. for three or four days. The doctors that I have talked with who have followed this routine claim they have never had a case of ophthalmia neonatorum after this treatment.

My experience with this particular infection has been so limited that I am not able to discuss Doctor Waldeck's very scientific and exact paper further.

DR. JOHN R. ROGERS, Grand Rapids: I want to ask Doctor Waldeck whether the treatment should be directed by the physician or whether it should be left directly to the nurse. I believe in treating ophthalmia neonatorum the part played by the physician in making applications to the eye at least once a day has a very great bearing on the result. I always feel the applications of nitrate of silver, carefully done, are a very important part of the treatment, in spite of the fact that argyrol has been used very successfully. In the days before we had argyrol we had to use something that would give a good result.

DR. HOWELL L. BEGLE, Detroit: This subject is so important to me in following up the work of Doctor Waldeck at the Children's Hospital that I almost hesitate for fear I will not emphasize some of the things that should be emphasized.

In the first place, as regards the 21 cases reported, the majority of the cases are not well reported. We treated last year at the Children's Hospital 59 cases. As most of these cases are sent in by the Board of Health of Detroit the hospital does not have a record of the cases, so perhaps they do not appear on the State record.

The care of these cases of ophthalmia neonatorum is largely a question of discipline. I want to emphasize that point. It is a question of discipline on the part of the general practitioner. The law specifically says that he must put drops in the eye, and says what he must put in. Probably the most of the cases at the Children's Free

Hospital are due to the fact that the physician has not followed the law. I recall very clearly a case about two years ago in which we were able to find out from the doctor how it occurred. He was called to a case which a midwife was attending, and while there waiting for delivery, he was called to another case. He said to the midwife, "you are familiar with what you have to do in regard to the eyes?" and she replied that she was. An aunt who took care of the baby told him that nothing was put in the baby's eyes. She blamed the doctor, and I think she was right. The doctor was responsible in that case. If the general practitioners would do their part it would make a vast difference.

The second point is that the general practitioner must report these cases. If he would do that we would get hold of them earlier. The cases that go bad are the cases that are not reported and do not come early to the hospital. The general practitioner thinks perhaps he has something that does not amount to much—he delays—perhaps one of the aunts or the mother thinks she can take care of the case, in three or four days there is an ulcer and when we get the child it is too late. The law requires the physician to report these cases, and if he would do this it would help materially in reducing the number of cases.

In the hospital it is a question of the discipline of the nurse. She does not have very much to do with the treatment, but the nurse must be instructed to take care of these cases. It does no do for a nurse who has never treated these cases to try it—she must be shown. And the treatment must be given regularly. Sometimes a nurse goes to a class or is detailed to some work and another nurse takes her place, and there is a lapse; or at meal time a nurse may go to dinner and perhaps the baby's eyes will not be washed for three-quarters of an hour. These are things that can be managed by discipline in the hospital.

As to the treatment, I think it is largely a question of washing the eyes as often as possible. You need a nurse with a conscience to handle these cases.

As regards nitrate of silver, we feel it is not the proper remedy to use in early acute cases. We have thought that perhaps the ulcer developed because silver was used in the early stage. I know there is a difference of opinion, but we do not use silver nitrate, even 1 per cent, in early cases. Whether argyrol does any good, I do not know. We have been using it and will continue to do so. We have used mercurochrome, but I do not know that it is any better than argyrol. But we do use silver after we think a certain amount of immunity has been established. We believe it creates a hyperaemia and possibly an antiseptic action, and the discharge may stop very quickly. Even if ulcer develops we should not give up the case. Occasionally the whole cornea or a considerable part of it is left, so that fairly good vision may result.

As regards the treatment of ulcer, I do not know what to do. I never felt that cauterization was of much use where you have gonococci in the epithelium; I do not believe cauterization will destroy the germ.

DR. CHARLES H. BAKER, Bay City: I do not believe Doctor Begle can get away with his position on nitrate of silver. I have watched ophthalmia neonatorum in one locality for 32 years, and some years ago I thought I was a kind of specialist in the treatment of this disease.

In the first place I want to say that the enforcement of the state law which requires that nitrate of silver shall be put into the eyes of all new-born has done more than anything else to control ophthalmia neonatorum. The only case I have seen in 12 years was a case in which the

physician evaded the law—not intentionally—because he tried to obey the law; but he used argyrol instead of nitrate of silver. That case developed into a frank ophthalmia neonatorum. Some years ago when I was in the Wills Eye Hospital, Doctor Oliver, speaking to a number of physicians, said, "We have practically abandoned the use of argyrol in our hospital for the reason that we find it is of no use in ophthalmia neonatorum, and so far as we can see it is valueless as an antiseptic of any kind." He said its only use was to produce a solution which was heavy enough to float out the pus.

My reply to Doctor Begle is this: I do not content myself with a 2 per cent solution of silver for the first application, but I always use a 4 per cent solution the first time I see a case. The method is the important in the use of silver. My method is this: I clear the eye as far as possible with pledgets of moist cotton, wiping out all the pus I can. Then I use a small probe wound with cotton, not more than one-eighth inch in diameter. I dip the probe into the silver solution, twist it so I have just enough silver so it will not flow. In many of these cases it is difficult to get the eye open at all and the most you can do is to raise the upper lid by pressure over the supraorbital arch until you can introduce this pledget of cotton at the inner canthus. The child resists and rolls its eye far up and the cornea is far enough up so it is practically out of reach. When I raise the lid away from the eyeball by the action of the probe and roll it from the inner corner of the eye to the outer corner, holding the lid away from the ball and making the silver touch over all the anterior conjunctiva and to the bottom of the cul de sac. Then I do the same thing with the lower lid. In that way I apply the silver to every portion of the conjunctival surface. One application of silver in that way in many cases will abort the disease.

Beyond the application of a 4 per cent solution at first and subsequently a 1 per cent solution for a few days, I instruct the nurse to cleanse the eye with pledgets of cotton dipped in normal salt solution every ten minutes day and night. Sometimes you cannot get the nurse to be faithful with that, and the only case I had go bad was where this was neglected. But do not irritate the eye with a syringe.

DR. NEIL I. BENTLEY, Detroit: I think possibly the important factor in their good results is the fact that they have properly equipped hospital and nurses trained for the work. On rule we make is that the nurse shall never under any circumstances attempt to wipe pus out of the eye. Wipe it off the lid, but do not attempt to wipe it out of the eye. You are apt to damage the cornea. A few years ago I was in a hospital where they had an epidemic of gonorrhoeal ophthalmia. They had not had any for a long time and they made every effort to get rid of it. They lost nearly half their cases because they made such strenuous efforts to get all the pus out of the eye. Pus should never be wiped out of the eye.

Doctor Baker gave a very beautiful description of the application of silver to the eye. He must have had his babies anaesthetized to be able to run a probe under the upper lid and then under the lower lid. Most youngsters I have tried are howling their heads off and they squeeze the lids down so that the conjunctiva runs far beyond anything you can reach with a probe without tremendous possibility of danger to the cornea, because the cul de sac runs up a long ways. I do not think silver nitrate should be used on the upper lid anyway. It is too dangerous.

DR. GEORGE M. WALDECK, (closing): In regard to mercurochrome, I have had no experience in the use of it in gonorrhoeal ophthalmia.

Regarding silver nitrate, we have rather held it in reserve. When cases come in, especially the severe ones, the lids are so swollen it is impossible to evert them. In many of them if we attempted Doctor Baker's method, even using our best technic, there would be serious injury to the cornea. Many of these cases have to have ice applied for twenty-four hours to get the swelling down so the eye can be everted and silver nitrate applied.

I agree that argyrol has not much bacteriological effect, but it does apparently act, perhaps because of its high specific gravity, in taking out pus, and it has been so successful that we are continuing to use it.

Replying to Doctor Rogers question, of course these cases are all seen by the physician once a day, and the application of silver nitrate is made by the physician. The nurse is carefully instructed as to irrigation and application of argyrol, but she is not allowed to swab the eyes at all.

Doctor Begle brought out the point of discipline. That is the keynote of the whole situation—a good nurse that will stick to the job. I usually put it up to the nurse that whether the child sees or not depends upon her—that the physician can prescribe the treatment, but she must carry it out. They usually come through like good soldiers, and I think the good results we have had have been entirely dependent upon the nurses.

Doctor Cady brought out the point of the instillation of argyrol for two or three days after the preliminary instillation of silver nitrate. I have often thought that might be a very good thing, especially where the physician knows there is an infection present in the mother.

Doctor Bentley emphasized the serious results that can come from too strenuous and frequent treatment. When I first started in ophthalmic work in 1910 I was of the opinion that none of these cases could be treated too frequently. Sometimes I prescribed fifteen-minute treatments. But I soon saw that was dangerous, that the results were not so good, and that the thing to do was to have the eyes irrigated only as frequently as was necessary to keep them free from pus. If the nurse goes to treat the eye and there is no pus she does not irritate, but applies argyrol; if pus is there the irrigates. But the eyes are irrigated no more than is absolutely necessary to keep them free from pus. We have decided that hourly instillation of argyrol is often enough, and yet not too frequent to interfere with the child's welfare and nutrition. I think treatment every ten minutes is bad business. The child is constantly disturbed and I think its resistance is lowered.

THE PRESENT STATUS OF THE SURGICAL TREATMENT OF UTERINE PROLAPSE*

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To the medical man in general practice uterine prolapse presents two methods of treatment, viz:

- (a) Local or palliative.
- (b) Surgical.

If he chooses the former he treats the condition himself, while in the latter case he refers the patient either to the general surgeon or to

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the gynecologist. As the family physician is usually the one originally consulted by the patient the percentage of cases referred for surgical treatment depends upon the results he has observed. Consequently the duty devolves upon the surgeon to keep abreast of the improvements in technic that he may be able to convince the general man that the surgical procedure is safe and offers the greatest expectancy of cure. Much has been written during recent years regarding the surgical treatment of this condition chiefly, I suppose, because the earlier technic was not eminently satisfactory inasmuch as the correct basis for procedure was not always recognized.

It is not my intention in this paper to set forth any new method for operation but rather to review and bring before you some of the more recent procedures that have given good results. There is one method of surgical procedure applicable to all cases for reasons that are obvious.

Roughly we may class the sufferers from prolapse into two classes:

1. Those who have borne children.
2. Those who have not.

On first examination we may be apt to consider the pathology to be the same in either case, but in reality it is not.

Wilcox (No. 1) recognizes two types of women in whom prolapse occurs from variable causes:

1. The hard working woman who has borne many children and has had to do hard "manual labor" requiring much straining effort. This results in an increase of intra-abdominal pressure aided by the pressure of the diaphragm and abdominal muscles crowding down the pelvic viscera through a badly lacerated and neglected perineum.

2. The second type, the "easy livers" of a higher plane of social life who are more or less indolent and who wax fat as they approach the age of 40, and in their efforts to maintain their youthful figures they lace their abdomens very tightly crowding the pelvic viscera down, as there is no chance for it to go up.

Without going into minute detail of the supporting structures of the pelvic viscera it is generally conceded that the round, the broad and the sacro-uterine ligaments, together with the folds of peritoneum formed by reflexion over the bladder and fundus, aid in maintaining the correct position from above. Below we have the various planes of fascia and muscle support which bear their portion of the duty in holding the pelvic structures in place. If we will remember that the supporting floor is concave from above downward, that it is weakened where the triangular ligament is pierced by the

vaginal and urthral canals even though it is strengthened on its upper and lower aspects by fascia which unite with the sheath of the levator ani muscle.

This fascial plane blends with the fascial sheath of the vagina. Always there is a thinning out and separation of the fibers of the levator ani muscle even though there is no superficial tear existing. This is accompanied by a stretching of the sacral, the cardinal, and the round ligaments by the travel of the uterus itself. If we can picture the floor as being stretched and torn by the passage of the child we can readily see why the vocation, social status, etc., results in so many cases of prolapse.

Spaulding, A. F., (No. 2) studied the pelvic, fascial and muscle structures from frozen sections at various planes through the pelvis. He quotes Halban & Tandler's classification of fascial rupture as follows:

1. The pelvic fascia may rupture immediately behind the symphysis giving rise to a sliding cystocele and urethrocele.
2. It may rupture between the cervix and bladder resulting in a prolapse of the uterus.
3. It may rupture between the cervix and rectum with resultant rectocele and uterine prolapse.

In the second classification of cases, namely, those who have not borne children, or as it is sometimes incorrectly called, "Congenital Prolapse." There is an unusually deep pouch of Douglas, due to faulty development of the posterior segment of the pelvic floor. This condition, coupled with an increased intra-abdominal pressure, gradually results in a retroposition of the uterus and later a herniation through the vagina.

Frank (No. 4) in 1917 published a very comprehensive article on the study of the anatomy pathology and treatment of prolapse, rectocele and cystocele from which he draws the following conclusions:

- (a) With very few exceptions anterior and posterior colporrhaphy combined with either the Alexander operation or a ventro-fixation are applicable to all cases of prolapse, or cystocele, rectocele, and retroversion both during and after the child bearing period.

- (b) To obtain the proper dimension of the reconstructed canal however requires considerable experience and proficiency in operating.

- (c) Only in a few cases where the general condition of the patient is precarious must the interposition operation of the uterus or vaginal hysterectomy be given the preference because of the shorter time necessary in their execution.

Bell, W. B., (No. 5) gives the classification which includes the degree of descent.

- (a) So called "Congenital Prolapse" as distinguished from congenital hypertrophy of the cervix.

- (b) Puerperal retroversion and flexion with slight actual or with potential descent.

- (c) Vaginal prolapse.
- (d) Prolapse of uterus and vagina.

1. During reproduction period.
2. After reproduction period.

Surgical treatment of these various conditions has been divided into three main divisions, each division having its staunch supporters.

1. Operations by the vaginal route with or without complete or partial hysterectomy.
2. Abdominal procedure with or without partial or complete hysterectomy.
3. Combined abdominal and vaginal procedure with or without complete or partial hysterectomy.

It was stated earlier in this paper that no one operation was applicable in all cases, yet there are many cases that may be cured by almost any method. The greatest percentage of cures in all types are obtained by those surgeons who make a close study of each individual case and adapt the surgery best suited to that individual.

VAGINAL OPERATION WITHOUT HYSTERECTOMY

Class 1. (a) Watkins (No. 6) describes the so-called interposition operation to relieve cystocele and prolapse. This is carried out by dissecting the bladder free from the anterior uterine wall, having previously dissected the vaginal mucous membrane and fascia from the bladder. The bladder is then pushed up under the pubic arch, the peritoneal reflexion opened as for a vaginal hysterectomy and the fundus delivered. The vaginal flaps composed of mucous membrane and fascia are then trimmed the desired amount. The bladder now rests on the upper and posterior surface of the fundus. The flaps are then united and anchored at the same time to the anterior fundus. If the cervix is long with a patulous and badly torn, it can be amputated. If the woman is in the child bearing stage the tubes can be cut off by a wedge shaped incision into the cornua and embedded in the wall at a lower level while the fundus is delivered. The operation is completed by an extensive perineorrhaphy carrying the repair of the levators well up toward the pubic arch so that the cervix rests well back. The round or broad ligaments can be utilized as a sling on the anterior cervical wall if it is found necessary.

He summarizes as follows: Wide incision, anterior to the cervix, free separation of the herniated bladder, closure of the hernial opening by circular sutures, restoration and fixation of urethrocele and perineorrhaphy are essential features of the operation. Amputation of the cervix, trachelorrhaphy, plastic surgery on the broad ligaments and vaginal fixation of the round

ligaments are adjuncts which can be utilized as necessary.

A modification of this operation is offered by Johnson & Phaneuf (No. 7) in that they use three silkworm gut sutures anchoring the vaginal fascia and mucosa to the anterior uterine wall and leave them in position for a month. Interrupted catgut sutures are used for the balance of the closure.

Jellet's method of transplanting per vaginum the sacro uterine ligaments to the anterior wall of the uterus has not met with much favor because of the frequent formation of post-operative hematomata.

VAGINAL ROUTE WITH COMPLETE HYSTERECTOMY

(b) Goffe advocated this method, which consists of a vaginal hysterectomy with suturing the stumps of the broad ligaments together and suspending the bladder by sutures to the round and broad ligaments. A perineorrhaphy when necessary completes the operation.

Bissell (No. 8) reports a vaginal hysterectomy technic when the removal of the uterus is necessitated, also a technic requiring cervical amputation only. Either one has for its basis of retaining the pelvic contents a method of fescial lapping upon which he claims the success of all operations for cystocele or rectocele the vaginal mucosa is separated from the bladder or rectum as the case may be. In repairing the cystocele after the mucosa and fascia are separated as one from the bladder, it is split from the cervix in the median line reaching upward well toward the urethra. Separation is carried out laterally and the bladder pushed well up. The vaginal mucosa is then denuded in a strip about one-half to three-quarters inch in width along the cut surface of one of the flaps. The other flap is then made to override the denuded area, thus making when completely sutured a double thickness of fascia in this central area. The same technic is carried out in the repair of the rectocele.

Cameron, S. J., (No. 9) believes in treating all cases of prolapse by the vaginal route. His operation is especially adaptable to frail elderly patients. This is carried out by making a circular incision around the cervix. The vaginal mucous membrane is then reflected upward for a short distance. The portion of the cervix below the level of the circular incision is then amputated and the stump seized with a vulsellum forcep. The usual perineorrhaphy incision is then made and the stump of the cervix is grafted to the raw surface of the posterior vaginal wall and held in place by several sutures. The levator ani muscles are then approx-

imated in the mid line with catgut. The external perineum is closed with silkworm gut.

At the time of his report in 1921 he had carried out this procedure in 24 cases with one failure.

Against this operation are the possibilities of pyometra, blocking up of all the uterine discharge, and inability to later examine the interior for carcinoma, etc.

In women who have borne several children and are approaching the menopause he advocates the interposition operation with sterilization. In young women he advises Fothergill's operation, which is an anterior colporrhaphy combined with a snug perineorrhaphy and amputation of the cervix.

Soler, Julia, (No. 10) believes that abdominal hysterectomy should be discarded as a method of treating uterine prolapse.

1. In young women treatment by extra-abdominal shortening of the round ligaments with reconstruction of the vaginal wall and perineum. If intra-pelvic adnexal complications present, intra-abdominal shortening should be performed.

2. Women at menopause with adnexal complications should be treated by vaginal hysterectomy and plastic vaginal operations.

Spaulding (No. 11) does a subtotal vaginal hysterectomy which depends for its success on the attachment to the cervical stump, the sacro-uterine, broad and round ligaments, the round ligaments being drawn through the cervical canal and sutured to the raw under surface of the amputated cervix before closing the vaginal flaps. He points out that the important factor in support lies in the supporting the cervix, which becomes so fixed in scar tissue that it can not be brought down with instruments by vaginal examination.

His claims in favor of the operation are:

1. The technic is less dangerous and more effective than total hysterectomy.

2. It preserves the invaluable paracervical and fascial ligaments.

3. It avoids danger of hemorrhage, sloughing and fistula formation.

In all vaginal operations dealing with the bladder, care should be exercised to completely free this structure so that no tension remains sufficient to cause pocketing. Should this occur it results in an incomplete emptying of the bladder, decomposition of the urine and chronic cystitis. Should the ureters become kinked or partially obstructed a back pressure on the kidneys results which in turn gives rise to an increase in blood nitrogen and symptoms of uremia.

It is well to bear in mind when trimming or lapping the vaginal flaps care should be exer-

cised, otherwise a too closely trimmed or too widely lapped surface will cause a pulling forward of the cervix under the symphysis. This results in the structure presenting at the introitus. Should this occur amputation of the cervix, which was not previously intended, becomes a necessity.

In cases of vaginal prolapse alone vaginal work is sufficient.

THE ABDOMINAL ROUTE WITHOUT HYSTERECTOMY

Class 2. Under this heading will fall those cases with only slight descensus as well as the so-called "Congenital Prolapse."

Bell, W. G., employs an original method of reconstructing the peritoneal portion of the posterior segment of the pelvic floor by splinting and approximating the sacro-uterine ligaments in the median line posterior to the uterus. This closes the pouch of Douglas at this level. He further supplements this operation with a modified Gilliam procedure.

COMBINED VAGINAL AND ABDOMINAL ROUTE WITH OR WITHOUT COMPLETE OR PARTIAL HYSTERECTOMY

Class 3. Collins (No. 12) advances a method which he thinks especially adaptable in old patients who have a very marked descensus. This operation is preceded by an anterior colporrhaphy if the cystocele does not disappear on pushing the uterus as high in the pelvis as it will go. A transverse suprapubic incision is then made down through the anterior sheath of the recti muscles. The structures overlying the sheath are then crowded up and a second transverse incision is made through the sheath one-quarter inch higher up. This leaves a transverse ribbon of the sheath one-quarter inch wide with normal attachments at each end. The recti muscles are then separated in the median line and the peritoneum opened. A supra-vaginal amputation is done, cutting through the cervix in such a manner as to remove a transverse wedge. This gives an anterior and posterior lip to the cervix. The stumps of the broad and round ligaments which are ligated en masse are then sutured to the posterior surface of the cervix and to each other. The transverse ribbon of recti fascia is then brought into the groove in the cervix and the flaps of cervix united over it. The peritoneum and muscles are then sutured around the cervix and the edges of the aponeurosis over the cervix. The suturing of the fatty layer of skin completes the operation.

He makes no mention of having a perineorrhaphy precede the abdominal work, but advises treating the cervical canal with carbolic acid and alcohol to avoid infection.

Young (No. 13) is a firm believer of the

value of the sacro-uterine ligaments, in returning the cervix to its normal position. He defends his argument by quoting the occurrence of retroversion and descensus in women who have never borne children and therefore have never had the muscle separation and fascial tears incident to childbirth.

He frequently uses a second stage operation, performing a dilatation and curettage is necessary, repair of cervix and perineum, as well as anterior colporrhaphy at one sitting. At the second operation, a week or so later, he shortens the sacro-uterine ligaments after a manner devised by himself. This is followed by shortening the round ligaments if necessary. He shortens the sacro-uterine ligaments to keep the cervix well up and back of the sacral promontory while the shortened round ligaments hold the fundus forward and down. He repairs the pelvic floor, including fascial and muscular structures, giving it the necessary support from beneath. His treatment of this condition appears very logical and in his hands gives good results.

Freeman utilizes a strip of fascia lata about three-quarters inch wide by six inches long obtained at the beginning of the operation from the thigh and stored in moist gauze until needed. After opening the abdomen he plunges a sharp pair of uterine pointed forceps through the uterine fundus from side to side, avoiding the uterine cavity. He then pulls the strip of fascia lata folded lengthwise on itself through this tunnel so that the center of the strip comes to rest at about the center of the tunnel. The two ends are brought up through the tendinous portion of the rectus muscle, one on either side of the median line, emerging beneath the anterior fascial sheath, which has previously been turned back somewhat. A half knot is made with the two ends and the fascial strip held in place by several catgut sutures. Catgut sutures also hold the strip in the uterine wall.

In women of child bearing age the necessity arises for sterilization. He adds that all necessary vaginal repair work should be carried out as usual. The advantages claimed are:

1. Lower mortality rate.
2. It is more easily performed.
3. There is less stretch to the fascial strip than in normal ligaments.
4. Less danger of infection than where the uterus or cervical strip is buried in the abdominal wall.

No recurrence in the 11 cases up to the time of this report.

Garcia de le Serrena (No. 14) makes a broad statement when he says that a plastic operation on the anterior and posterior vaginal wall is seldom necessary. He makes an eight-inch ab-

dominal med. incision, pierces the fascia muscle and peritoneum with a pointed wire 3 c. m. above the pubic bone. This passes under the round ligament and tube, pierces the posterior fundus laterally and passes under the tube and ligament on the opposite side, and then again pierces the abdominal wall from within outwards and the two ends are then twisted together. In multipara he ties off the tubes, but he states that should women become pregnant a small incision could be made in the abdominal wall and the wire removed.

Mathes (No. 15) believes that the bladder is the most important factor after injury to the birth canal in producing prolapse by pressure on the surrounding part. While prolapse in the virgin finds its explanation in the pressure caused by the intestinal loops thrusting themselves into the abnormally deep culdesac, crowding the uterus before them. He attributes this deep sac to an arrest in development and a congenital variation associated with other signs of defective or arrested growth. Consequently he believes that operative methods to correct the supports of the uterus or to strengthen the buttress of the bladder are inadequate. He now advocates a modification of the interposition operation.

If we review the statistics of some of the larger clinics we may get some conception of the results obtained.

Bell, W. G., who has been previously quoted, reports from 400 cases up to the time his paper was prepared in 1920, with a result claimed of 99 per cent of cures, .5 of 1 per cent mortality rate. Surely this is a good result. Bell is a believer of combined abdominal and vaginal procedure. He also firmly believes in reconstruction of the posterior segment of the pelvic floor by the abdominal route.

Wilcox (No. 16) is a firm supporter of hysterectomy in those patients approaching or past menopause. In a series of 156 cases collected up to the time of his report, 63 of whom underwent a total hysterectomy with one death, 93 had a supravaginal hysterectomy with one death. He advises keeping the patient 14 days in bed and 20 days in the hospital. His average time for operation was 50 minutes.

Cameron's (No. 17) statistics for the five years preceding 1921, in which he employed his own operation previously described, 292 cases with no mortality and no recurrences that have been reported. In 136 cases in which he employed the interposition operation there was no mortality and one recurrence.

The question of advisability of sterilizing a woman of child bearing age who is approaching the menopause in order to carry out some favorite operation is one that will not reach the approval of most operators. Some feel justi-

fied in sterilizing a patient to carry out the interposition operation, while others would abandon this procedure for an operation that would permit a subsequent pregnancy. These are questions that will always be raised and can only be decided by the individual surgeon. The ultimate results depend upon his skill and judgment in choosing a suitable operation.

Many times the question of sterilization is not left to the surgeon and he is required to utilize a method of surgery perhaps that he would not use had it been left to his own choice. Another group of cases present themselves where a special type of operation seems best adapted. This refers to women with a large pendulous abdomen, with flabby walls, and severe lacera-tions of the perineum, a large heavy uterus, and complete or almost complete descensus. In women of this type a combined vaginal and abdominal method, utilizing the rebuilding of the posterior segment of the pelvic floor after the manner of Bell, possibly with supravaginal amputation and thorough anterior colporrhaphy and perineorrhaphy, will give good results. This procedure requires careful attachment of the broad and round ligaments to the cervical stump in order that there will not be later stretching out of these structures.

In young women in the child bearing period Bell's operation or some modification, does not prohibit future impregnation. In healthy women of spare build with relaxed outlet and partial or complete descensus with a uterus that is not greatly enlarged, the interposition operation or some of its modifications can be always relied upon if properly performed.

I can see no reason to employ fascial bands, wire, or other foreign substances to support a heavy uterus. Many of these patients are improved after operation with a well fitting abdominal support. It is needless to say that patients having ulcerated or excoriated surfaces or an exposed uterus that these must be thoroughly healed before surgical measures are begun.

It is my opinion that if the surgeon will make himself conversant with the various methods of treating prolapse surgically and adapt the method to the patient rather than the patient to the method he will ultimately obtain a more nearly perfect surgical record.

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DISCUSSION

DR. H. H. CUMMINGS, Ann Arbor: Dr. Witter has brought before us the various operative procedures used in these cases that we are constantly meeting. Of course, he has only touched on the subject. As you know, when you go into the subject of the round ligament or retroversion operation you will find many different methods. I regret that he did not say more about the Watkins operation. If a woman does not wish to be sterilized the Watkins has no place, but near the menopause the interposition operation gives excellent results, and I think it will grow in popularity because it does accomplish the results. I think a few technical difficulties are holding it back. One, the difficulty the fixing the uterus, the sutures being placed on the anterior instead of the posterior when the wall is actually unfastened. The sterilization can be carried out quite easily, except when the uterus is large and contains nodules. For two years I have been trying the fascia plecting. This looks easy in the picture, but it is sometimes difficult to dissect out the fascia. You can with care get good supporting structures on the sides, and by bringing them together and overlapping can hold up cystocele in a very satisfactory manner.

After trying various round ligament operations, I try in most cases to use the ordinary technic of going through the rectus muscle under the fascia, coming out with the hemostat under the round ring, grasping the ligament and retracting. I think that gives us anatomically a good operation, because you cannot get the various complications that you see so often after other operations, and whether you bring it up through the fascia or suture it under the fascia makes little difference. I think the percentage of cures are rather high in this operation.

DR. RUEBEN PETERSON, Ann Arbor: I think Dr. Witter has given us a very fine resume of the various operations used for uterine prolapse. I agree with Dr. Cummings in regard to the interposition operation. Before the use of that operation in the clinic we got many failures, a cystocele and rectocele and the prolapse returned. Since employing this method in a good many hundred cases we have had very few recurrences. There are difficulties, but they are easily overcome. One should not go too far to the side in dissecting off the bladder flap, as Dr. Witter pointed out. If you do, you get bleeding and in many instances a hematoma forms.

Another little trick that has helped us after the vaginal flap has been dissected away is to take the ordinary forceps and lift up the bladder and then cut between the bladder and uterus with the scissors. This avoids getting too near the uterus and having to push up the bladder. This has been very helpful to us in stripping up the bladder. We have been trying in all the flap operations to overlap the pelvic fascia. In many cases it helps and increases the efficiency of the interposition operation. In young women we sometimes combine the vaginal operation with the abdominal and vice versa. Very rarely are we called upon to do the abdominal operation with the interposition operation. That operation will take care of the prolapse and that is of especial advantage in fat women. They will not submit to an operation if it entails a laparotomy, but if you can do it all from below they are willing to be operated.

One word in regard to sterilization. In a woman near the menopause who has not conceived for ten or twelve years, I think it is possible to take a chance, even if she is still menstruating, because she probably will not conceive. In the case of a young woman there may be cases where they will request that they be sterilized. That brings up a subject that it would be well for this Section to discuss. Just because a woman wants to be sterilized have we the right to do it? Also, in the cases of women who are not mentally competent have we

this right? This has been brought to my attention recently by a woman in the Psychopathic Hospital. She had two or three children and Dr. Barrett thought she should be sterilized and asked me to perform the operation. I did so at his request without any responsibility, although I pointed out that circumstances might arise where it might be very embarrassing. This has resulted in this case. This woman recovered from the cornual resection of the tubes and was thoroughly sterilized. She went to work and I recently had a letter stating that she wished to be unsterilized. That is just the point. This woman was in the Psychopathic Hospital and because of that her mental responsibility was open to question. Permission for the operation was given by her husband and it was performed at the request of Dr. Barrett. Now she wants to remarry. She says she has entirely recovered mentally and she will not remarry until her tubes have been placed in position so that she can bear children. This is important for it brings up the whole question of sterilization in young women. They request sterilization and then afterwards change their minds and ask to be unsterilized. If the woman is competent mentally and sterilization has been performed on pathologic grounds we cannot be held responsible. If not, what right have we to sterilize her when she is in that condition? She may recover, as this woman claims she has, and want to be unsterilized, and may say, "You should have thought of that when you took advantage of my inability to consent to an operation." There are many questions in connection with sterilization that I think it behooves the profession to consider carefully. This operation is being done 500 per cent more often than ever before because we know that we can absolutely sterilize a woman by the cornual resection, but one should be sure of his ground before doing the operation.

DR. BERNARD FRIEDLANDER, Detroit: In a new operation for uterine prolapse a circular incision is made around the cervix and about 2 cm. of the vaginal mucosa is bluntly separated from it. A posterior colpoceliotomy is performed. The incision is extended along the posterior vaginal wall, far enough down if a perineorrhaphy is indicated. The bladder is not disturbed. The corpus uteri is rolled out in such a way that the posterior wall is visible.

Through the thin portion of the broad ligament a curved pressure forceps is thrust from behind forward. The forceps enter just under the utero-ovarian ligament and come out between the fallopian tube and the round ligament. The round ligament is then grasped and drawn through the broad ligament. The round ligament of the other side is then drawn back of the uterus in the same way (Webster-Baldy technic). The ligaments are grasped far enough away from the uterine horn on either side to get a fairly long loop. The two forceps are temporarily held by an assistant. The upper part of the celiotomy incision is closed now, otherwise the cervix which is pulled high up by the round ligaments might make it inaccessible.

The forceps holding the round ligaments are now pulled forward very slowly. The loops of the round ligaments will be seen on either side of the cervix and are united by two catgut sutures in front of the cervix and to the cervix by another suture. The anterior flap is sutured over the loops and covers them completely.

The remainder of the celiotomy incision is closed with number two chromic catgut threaded in a large needle catching the levator ani muscle and sacro-uterine ligaments at the same time. A perineorrhaphy and anterior colporrhaphy may be performed if found advisable. If incontinence of urine is present the pyramidalis-fascia-operation may be done.

Advantages of this operation are: It can be carried out in an old woman without hesitation. It is less dangerous than the Webster-Baldy operation, as the abdomen does not need to be opened. It is more effective than the Webster-Baldy operation on account of the round ligament loops forming a hammock for the uterus and suspending it properly. The uterus remains permanently in an anti-flexed position and raises the cervix high up. The deep

pouch of Douglas is flattened out by bringing the sacro-uterine ligaments together and the vaginal vault is considerably narrowed by uniting the levator ani muscles. The whole operation is done through the same incision. This operation is not recommended in women during the child-bearing period, but as many cases come to our notice after menopause the procedure is applicable in a great majority of the cases.

DR. F. C. WITTER, Detroit, (closing): I do not know of anything I can add. Dr. Peterson's remarks about the sterilization bring out a good argument. If you wish not to sterilize and the patient wishes you to do so, which is frequently the case where women have borne several children, there is much to be considered. Suppose the husband dies and they want to remarry. They may not have a chance to do so if they are sterilized. Recently I refused to sterilize a woman and she was aggravated with me and also the husband. Next time I will propose that argument—that perhaps the husband will not live.

There are several modifications of the Watkins' operation. I did not go into detail except to bring out the little points, but the thing in all vaginal operations on the bladder is to be careful about bleeding points and get the bladder well freed. I do not think it is necessary to put in two or three silk-worm sutures in the anterior part of the fundus and leave them in for a month. I have never found that necessary, and believe catgut sutures will hold it as well. Dr. Bell's procedure appeals to me, particularly in cases where there is a marked retrocele. Reconstructing the posterior segment of the pelvic floor, doing away with the pouch of Douglas and with the downward pressure sliding them too.

THE METHOD OF TREATMENT OF PYLORIC STENOSIS AT THE UNIVERSITY OF MICHIGAN HOSPITAL*

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The discussion of the treatment of pyloric stenosis and of pyloric spasm occupies a prominent place in pediatric literature at present because of the enthusiastic advocacy of medical, as opposed to surgical treatment. The recognition of the fact that the great majority of cases of pyloric stasis can be successfully treated by careful and painstaking medical care, makes unnecessary any apologies for further consideration of the underlying principles.

I shall not attempt to discuss whether pyloric stenosis is a congenital condition *pese*, or whether it is a secondary muscular hypertrophy induced by primary spasm of the pyloric sphincter. Even though we might not care to admit that the final thickened pyloric ring is caused solely as the result of spasm, we must recognize the fact that the symptoms are contributed to largely by this hyperirritability. This has been conclusively demonstrated in cases which were treated medically, resulting in clinical cures, but which later came to autopsy because of intercurrent infections, and showed the markedly enlarged pyloric ring still present.

*Read in Section of Pediatrics, M. S. M. S., Flint, June, 1922.

Also because of the immediate improvement which is usual when careful treatment is directed toward the spasm, we must admit that in a large proportion of cases true hypertrophy does not account for the entire clinical picture, because hypertrophy cannot be caused to disappear in twenty-four to forty-eight hours. We believe then that in every case of obstruction at the pyloric end of the stomach there is spasm, either alone, or associated with true hypertrophy of the circular muscle fibers. The clinical differentiation between pure spasm and true stenosis consists essentially in the demonstration of a permanent tumor mass in the latter condition.

Before we can adequately consider the treatment we must discuss some of the factors which influence the rate at which food leaves the stomach. The statement has been made by many physiologists that peristaltic waves do not pass over into the duodenum following their progression across the stomach from cardia to antrum, but are interrupted at the pyloric ring. This has apparently been disproved by Wheelon and Thomas in St. Louis. They have shown experimentally in dogs that the duodenal contractions follow those in the pyloric antrum and sphincter in the same way that peristaltic waves pass down the lower segments of the intestine in conformity to the "law of the intestine." At first glance this might seem to contradict the work of Pawlow and Cannon. They were able to show in animals with fistulas leading into the pyloric antrum that the introduction of substances possessing a certain optimum acidity stimulated the opening of the pylorus, and alkalis introduced in a similar manner delayed this opening. On the other hand, acid introduced into the duodenum through a fistula caused a reflex closure of the pyloric sphincter, the duration of which depended upon the time required for the duodenal contents to again become alkaline. The introduction of alkali into the duodenum did not cause pyloric closure.

Cowie and Lyon in this clinic demonstrated that these findings based on animal work are applicable to infants. By introducing measured amounts of formula through a tube into the stomach of a normal infant, then recovering the gastric contents after definite intervals, they were able to determine the normal rate of emptying. By adding acid to the same formula, the rate of emptying was much delayed because of the longer time required to neutralize the overacidity developed in the duodenum. This phenomenon was called the sustained duodenal closing reflex. When alkali was added to the same formula before introducing it into the stomach, the emptying rate was also delayed, due in this case to the increased length

of time required for the contents of the pyloric antrum to reach the optimum acidity which resulted in the opening of the pylorus. This is spoken of as the delayed pyloric opening reflex. It seems reasonable to believe that a chemical control of the pylorus of the nature outlined above must be operative, in addition to the rhythmic passage of peristaltic waves recently emphasized by Wheelon and Thomas because, as can be seen while following a bismuth meal fluoroscopically, every peristaltic wave which bombards the pylorus does not result in the passage of stomach contents into the duodenum.

Cannon has also shown by fluoroscopic examination of cats which had been fed bismuth meals that the emptying time also depended upon the nature of the ingested food. Pure carbohydrate leaves the stomach comparatively rapidly because it cannot bind the acid, so the contents reach the optimum acidity quickly. Protein, because of its power of binding acid, stays in the stomach longer before the proper degree of acidity is reached. Fat is the slowest of all to leave the stomach as shown by Cowie and Munson on infants. It is credited with inhibiting the secretion of gastric juice, thus causing a slow production of the optimum acidity.

The presence of large masses of food elements, such as tough protein curds, is also supposed to delay gastric evacuation.

Thus far only local factors have been discussed, and the extrinsic nerve supply of the stomach and duodenum have not been considered. The vagus nerves carry chiefly augmentor fibers to the intestinal tract, and stimulation of these nerves generally results in increased tonus and contractions, affecting the pyloric sphincter as well as other regions of the musculature. It is a clinical fact that pyloric spasm is much more liable to occur in so-called "hypertonic" infants, this term being applied to those babies showing increased general tonus, overactivity, restlessness, a tendency toward regurgitation, and certain vasomotor phenomena, such as flushing, cold hands and feet. This vagotonic spasm of the pyloric sphincter undoubtedly plays an important part in the slowed gastric evacuation.

The medical treatment of pyloric stenosis should be based on the practical application of the above principles. It is aimed at the spasm and not at the thickened pylorus, although the symptoms have been relieved in all cases tried, even though the thickened muscle ring may have persisted long after the disappearance of clinical symptoms.

If the infant is breast-fed it has been considered best to maintain this type of feeding if

the supply is regular and of good quality, even though the results are not usually so striking as in artificially fed babies. When using a formula it must be remembered that fat leaves the stomach slowly, so skimmed milk or whey are preferable to whole milk dilutions. It is also essential to present the protein in a form which will not result in large tough curds when acted upon in the stomach by rennin. Four grains of sodium citrate to each ounce of milk prevents the formation of large casein curds, but when given over a long period of time it has been noticed by Dr. Cowie to have an unfavorable effect upon the weight curve. Protein or albumin milk may be used by starting with skimmed milk instead of whole milk and thus avoiding the incorporation of the relatively high fat. Whey contains lactalbumin which is not coagulated by rennin. Acidified milk, or buttermilk, with added sugar, furnishes a finely coagulated protein in the form of casein lactate. Perhaps the most available way of securing finely coagulated protein in the stomach is to use diluted skimmed milk which has been boiled for five minutes over an open flame. To this may be added a sugar, and about 3 per cent of cereal, the latter because of its protective colloid action. The amount of sugar, milk and water is calculated as for a normal infant of the same age and weight (using the method to be outlined by Dr. Cowie in his paper).

The thick cereal feeding recommended by Sauer is not routinely used in this clinic. It is frequently difficult to make the patients take this semi-solid food, and it is so deficient in water that unless the infant is given rectal or parenteral fluid he is liable to show symptoms of anhydremia. Also the simplicity of the method is liable to make the clinician neglect other very important physiologic principles.

Frequently the formula is much better retained when given in small amounts at frequent intervals. As an example, a vomiting infant will retain one ounce every hour much better than three ounces every three hours.

Stomach washing is of the greatest importance. When performed just before a feeding it removes the residue left from the preceding meal and washes out any excess of acid which may have accumulated and which might be causing a sustained duodenal closing reflex of the pylorus. It also affords a very good opportunity to secure gastric contents for analysis of acidity, and for measurement by which to judge the rate of gastric evacuation. It makes possible by the same operation the introduction of carefully measured amounts of formula.

Since Haas advocated the use of atropin in pyloric spasm because of its paralyzing effects upon the nerve endings of the vagus, there have

been many conflicting views concerning its value. If it is properly used it is undoubtedly very efficient. The most frequent error in its employment is that the dosage is not pushed to its physiological limit. If atropin is properly employed in these cases your druggist is liable to inquire concerning your sanity. With certain precautions, however, it is safe, and is tolerated in surprisingly large doses. An active preparation must be used, and it should not stand for more than two or three weeks in solution because it undergoes a loss in potency. The prescription which we usually use is:

R Atropin. sulphat. gr. $\frac{1}{2}$
Aq. dest. $\overline{3}$ 1
Minim. I—1/1000 grain

The initial dose is one minim with each feeding, provided the usual three-hour interval schedule is being used. It may be given in the formula if the baby is bottle fed, or in a teaspoonful of water if breast-fed. If regurgitation is marked enough so that retention of the atropin is improbable, the drug may be given subcutaneously in slightly smaller doses until retention by mouth is assured. The amount is increased until definite improvement occurs or toxic signs appear. An infant frequently receives as high as four or five minims of the above prescription at each feeding. The upper limit is not measured by the number of minims, but by the physiologic action produced. Briefly stated the signs of toxic action are one or more of the following:

1. Flushing or reddening of the face, neck and chest, at times marked enough to simulate scarlet fever.
2. Dilated pupils which do not react to light.
3. Elevation of temperature which may at times be marked.
4. Dry lips and mouth, absence of tears.
5. Hyperirritability, expressed by jumpy movements when startled by noises, bright light, or handling.

If, when this point is reached, the drug is omitted for three or four doses, then resumed at a level one minim less per feeding, its administration may be continued.

All of the procedures mentioned above are not necessarily applied to each case. The strenuousness of the treatment depends upon the severity of the symptoms, and as improvement is secured the rigorousness of the campaign is gradually abated.

To summarize briefly, the following medical treatment is conducted on a severe case of pyloric stenosis or spasm. If the infant is already dehydrated because of fluid loss due to vomiting, and the symptoms are urgent, it is given parenteral fluid as long as conditions demand it. We usually give subcutaneous or intra-

peritoneal saline solution. A stomach tube is passed and the gastric contents secured for analysis and measurement. A thorough lavage with plain water is then done and the formula given through the tube. The formula usually consists of a boiled skimmed milk and water and dextrin-maltose combination, to which may be added 3 per cent of cereal. The strength and quantity is suited to the caloric requirements of a normal infant of the same age and weight (as will be outlined by Dr. Cowie this afternoon). The lavage is repeated before every feeding at first. Atropin is added to each bottle in a quantity sufficient to keep just short of the limit of tolerance, unless distinct improvement is secured before the upper limit is reached. As the symptoms decrease the number of lavages is gradually reduced, then the dosage of atropin is carefully decreased as the infant's condition warrants. The formula is also regulated from time to time so that the retained amount continues to fully cover the caloric requirements of the patient.

The method requires much time and plenty of patience. The results may be discouraging for many days or even weeks so far as gain in weight is concerned, but usually there is a rapid improvement in symptoms. More and more food is retained, the stools gradually increase in size, and finally, after the patient's blood volume is restored, gain in weight ensues. From this time on the change is startling. Many of these infants weigh more at the end of six or eight months of treatment than does the average child of the same age.

DISCUSSION

DR. THOMAS B. COOLEY, Detroit: The question of pyloric spasm and pyloric stenosis is a perennially interesting topic, and certainly we do not know all about it yet. So far as handling the individual case is concerned, I do not believe any certain method of treatment is universally satisfactory. We have heard a lot about the thick cereal method of treatment, but it is very difficult to apply and does not always work by any means. I believe that we must always individualize these cases.

As to the question of hyperacidity, these children are hypertonic, neuropathic types who have, or are like to have, an excess of gastric acidity. That is rather an important matter when it comes to feeding. Dr. Hoag mentioned the possibility of using lactated milk. I do not believe any of those things will work in many cases of pyloric spasm, for the very reason that the child is likely to have a hyperacidity. The addition of an alkali seems more desirable than anything to increase the acid or to get rid of alkaline salts. One has to remember that all babies do not have the same kind of digestive secretion by any means, so in the selection of food in these cases one must individualize very decidedly. I think, as Dr. Hoag says, that on the whole, skim milk is the best basis for the diet so far as the milk part of the food is concerned. It is more uni-

formly successful. If it is boiled you are not likely to have the trouble with curds, which factor is not I believe very important for the reason that thick curds from any skim milk preparation are not common.

I firmly believe that a reasonable amount of cereal added to the diet does help in nearly all these cases, although it is not always necessary to make the stuff so thick that it is almost impossible to feed it.

I believe in the use of atropin, for treatment with this agent is often very successful. Also in some cases I have had very good success with novocain, which has a very great tendency to relieve these spasms and I have sometimes thought that of the two it was on the whole the better drug. Either one may be of considerable service.

The point that seems to me of most importance in the discussion of pyloric spasm at the present time is how long one should persist in medical treatment, and how much we are going to encourage everybody to persist in medical treatment. The great majority of recent papers on this subject have been very optimistic on the question of the success of medical treatment, so much so that I fear it is going to encourage men to persist in medical therapy in cases which should for one reason or another come to operation, or to encourage men who are not really very skilful in feeding to go ahead with the non-operative treatment. And if that happens some babies are going to be lost that might be saved by operation.

There is another side to the question of medical treatment: It is very tedious in a good many cases. Operative treatment in the hands of a skilled surgeon has slight mortality in these days and the results are rapid instead of slow. Therefore even if you feel fairly confident of the outcome of non-operative treatment, it often seems economically better to subject the child to operation if you are sure you have a really skilful operator.

There is another point which Dr. Hoag did not go into in this paper, and that is the fact that cases treated medically often have a thicker pyloric ring left behind than is the case when operative measures are used, and that thickened pyloric ring does not always exist without causing gastro-intestinal symptoms. It has been my fortune to observe several cases in which persistent gastro-intestinal symptoms were periodically manifested several years later. The oldest child I recall at present was a boy of about 8. This child had had persistent symptoms recurring periodically, undoubtedly due to the enlarged pyloric ring. This is something which I believe we must always consider when extensive hypertrophy of the pylorus is present.

DR. E. E. MILLER, Flint: I remember hearing this subject very definitely discussed at a clinic last year in New York, and it was decided there that operation was still to be considered as preferable because in many cases the constriction would never be absorbed. In one case which I operated here, the hypertrophied tissue was at least three-quarters of an inch wide and about one-quarter inch thick. This child had almost complete obstruction. For the first few days after operation the child lost weight, but after that gained nearly a pound a week until at the end of the third or fourth week it was back at normal.

As to atropin, I believe it is all right in pyloric

spasm where there is any obstruction. We should give the atropin at least twenty minutes before feeding, a drop a day for each dose until you get up to seven or eight drops of 1 to 1,000 solution.

DR. W. J. KAY, Lapeer: As the essayist has suggested, the procedure which has given the largest measure of success at the hands of those who have followed it is the one which should be used when possible. While the method of treatment outlined by Dr. Hoag should be followed in a great many cases, at the same time I think it is going to lead us into danger, particularly in the hands of men not so well trained in that particular procedure. In our service the medical treatment has not been nearly as gratifying as the surgical treatment. When the simple Ramsted operation is performed the procedure is attended with very little shock and the patient recovers. Further, the nutrition is a matter which can be very readily looked after in post-operative cases. The child immediately begins to pick up. In referring to feeding during the medical treatment of pyloric stenosis, I am surprised that Dr. Hoag did not mention that condensed milk is coming to be used. Of course in the hospital the patients are all given the ideal food, condensed milk. It is one of the best foods for the stomach. It is well worth trying inasmuch as it has a very high nutritional value also.

DR. F. B. MINER, Flint: This subject I feel very strongly about, having lost two children of my own. And I firmly believe there is a prophylactic side to pyloric stenosis during the carrying period of the mother that should be studied. I cannot say much about that, but this condition occurs in families. I know of another doctor who has had two such cases, both of his children having had marked pyloric stenosis and with a large tumor, and both have come to operation. These two infants of my own were premature, in my opinion due to the marked condition of myoclonia of the uterus. There was a spasmodic action of the uterus. I am not sure about the development of tumor in the first child, as no post-mortem was done. But the second child, a 7½ months baby which lived only four days, had a tumor a little larger than a robin's egg, made up of a tissue that cut like cervical tissue and was as strong as gristle. The child did well until the fourth day when it suddenly developed pyloric spasm and then a laryngeal spasm and died. As stated, I think there is in these cases an element of prophylaxis which should be studied.

During the past six months I have had three cases come to operation, one partial and the others complete stenosis. The two latter were breast-fed babies and both had tremendously large tumors. One was operated at the 47th and the other at the 50th day of age. The operation was perfectly simple, without a general anesthetic. One went to sleep under local. A skilful surgeon will do the operation without shock. Feeding followed in three hours and the baby made a wonderful recovery. One baby was not seen early and became very much dehydrated. For 91 hours I fed by rectum. All enemata were retained with the exception of two. The baby gained in weight before the operation. This is made possible by the law of the intestine as pointed out by Bules & Stailey: "Contraction above is accompanied by relaxation below." You can build by a dehydrated baby by using the rectum if there is a definite con-

striction above. I think the treatment of this condition of stenosis is essentially surgical.

DR. GIFFEN, Toledo: It has not always been my privilege to practice where I had the advantage of the X-ray or other modern refinements of diagnosis. I had to depend on clinical observation. It seemed to work out in practice that on passing the catheter into the stomach for the purpose of making differential diagnosis between pyloric spasm and pyloric stenosis, in pyloric spasm cases there was always a pharyngeal reflex in getting the catheter in and when you did succeed in doing this you could not get it into the duodenum, but by waiting it sometimes slipped through. In the stenosis cases it would not go through. I do not know that you would ever depend on that finding, but thought I would mention it.

DR. R. S. ROWLAND, Detroit: I want to express to Dr. Hoag my appreciation of the very clear discussion of the physiology of this subject, which has appealed to me.

I was fortunate enough to hear Sauer in his first presentation of the subject of thick cereal feedings, some three or four years ago, and on returning from that meeting I immediately put a number of my pyloric spasm patients on that feeding according to Dr. Sauer's suggestions at that time. Since then I have been carrying out that treatment modified by my own clinical experience, in severe cases usually beginning with skim milk added to the very thick Farina gruel. During those years I have had two or three operative cases which have had a number of severe pyloric spasms, and which on the thick cereal feeding have gone along in a brilliant way to recovery.

The question of dehydration in the beginning is important, and I think the discussion of this phase has been cared for.

As to the question of the use of novocain, I want to add to what Dr. Cooley has said. I have not had to use novocain as much as formerly, and still I think there is a type of nervous, inexperienced mother whom it is well to encourage by having her see the vomiting stopped rather quickly, and in these cases novocain has been a decided help. I have recently been told that it might at times produce toxic symptoms. I have used it many times, a grain to the ounce, 8 minims before each feeding, and have never experienced toxic symptoms.

One other point I believe Dr. Hoag did not mention, but which I think is of value, is the use of a thick gruel preceding the nursing. In those cases in which we wish to keep the baby on the breast I have found that giving one-half ounce of thick farina preceding nursing is of a great deal of value, temporarily at least, and I think it is worth trying in breast-fed babies.

I personally disagree with the statement that this is a surgical condition. From my own experience I believe it is almost entirely a medical condition. Very few cases need to come to operation, and if they need to come to operation it is because of the method of feeding that has been employed.

DR. D. J. LEVY, Detroit: Last year, before the medical section of this society, I reported at length my views in regard to thick gruel feeding in cases of pyloric spasm and pyloric stenosis. There are one or two points I wish to bring up. My experience during the past year includes a number of ad-

ditional cases, and my opinion as to the pronounced value of feeding thick gruel in cases of pyloric spasm has not changed to any appreciable extent. It is very important indeed to differentiate between pyloric spasm and projectile vomiting, to which there is a surgical basis. There is no denying the fact that medical treatment will not reach these latter cases, they must be operated. But the vast majority of such cases of vomiting which we encounter in infancy are spastic in character and not obstructive. This can be proved by the clinical result of medical treatment with thick gruel feeding. Merely one or two gruel feedings a day to the breast-fed baby will often take care of the vomiting. The thick gruel protects the gastric mucosa and has an additional nutritional value.

I want to caution against the use of skimmed milk unless reinforced by a considerable amount of gruel. Babies that are kept for any protracted period whatsoever on diluted skimmed milk encounter resultant metabolism injury. The use of the thick gruel is indicated in certain cases, although generalizations in these cases are dangerous. Each case should be decided on its merits. There should be no prolonged loss of weight when correct thick gruel feeding is employed. In fact, with correct thick gruel feeding our babies do not stand still, they begin to improve immediately after this method of feeding is inaugurated. Atropin treatment, which may not be without untoward effects, can be entirely eliminated, and even novocain, which is relatively harmless, finds a much lessened indication with the use of thick cereal feeding.

DR. HOAG, (closing): I appreciate very much these helpful suggestions based on the experience of the discussers. As was said in the discussion every case should be individualized. Necessarily in a paper of this kind we could not do more than to give a generalized method, which should of course be individualized for each case in the clinic.

I am glad that the point was brought up about lactic acid milk in relation to gastric acidity. When we use this acidified milk we are in the habit of letting the fermentation (if we use fermented milk) proceed just to the point of precipitation of the protein, and then stop the process. When adding lactic acid to the milk we do the same, without leaving very much unneutralized acid in the preparation. We do not go on to the limit of fermentation, which is usually three times higher in its acidity than the point of precipitation.

I do not think the experience in our clinic would indicate that some of the pyloric stenosis cases are distinctly surgical, because it happens that of the cases we have treated none have required surgical intervention. Undoubtedly the greater share can be treated medically, emphasizing the fact that the medical treatment is of course directed against the spasm.

While we are not in the habit of using the real thick cereal which must be fed with a spoon, we do believe in the use of cereals, for their protective colloid action. Skim milk is not used any longer than necessary because we realize the danger of feeding infants over a long period of time with practically no fat, on account of the lack of certain vitamins, with which we are not as yet entirely familiar.

The suggestion of giving atropin before the feedings I accept as valuable. Novocain we have never

used, so I cannot give any opinion concerning this agent.

I neglected to mention that in our breast-fed cases we use cereal before the feedings and find it of great value in controlling the vomiting.

IN THE INTEREST OF ACTIVE IMMUNITY

Diphtheria can be prevented as surely as smallpox or typhoid fever. And by the same means—the use of a modified specific toxin. In the case of diphtheria the modification is effected by mixing the toxin with antitoxin. The toxin is first standardized to a degree of accuracy that rivals the inerrancy of a chemical reaction; and the antitoxin is standardized in units (both by official processes). This modified toxin (called toxin-antitoxin) does not produce any of the symptoms of diphtheria, but nevertheless it stimulates the body cells to produce antitoxin, and this antitoxin, unlike that introduced into the blood from without, remains a part of the patient's equipment and protection indefinitely—for several years at least, and perhaps for life.

All children between six months and six years should be immunized with toxin-antitoxin; others, if shown to be Schick-negative, need not be. Parke, Davis & Co., have an interesting reprint on this subject which they would doubtless send to any inquiring physician.

IMPORTANT ANNOUNCEMENT

The medical profession everywhere will be interested in the announcement that the Abbott Laboratories of Chicago have purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories and will give them deserved recognition among the leading manufacturers of medicinal products.

It will be remembered the Dermatological Research Laboratories were the first in the United States to produce Arsphenamine during the war when there was such a scarcity of this article; and these laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "DRI" products, the Abbott Laboratories inherited their prestige.

The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November First, and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the department of Chemistry, and his corps of specially trained assistants. Orders for "DRI" products will be promptly filled from the Philadelphia Laboratories or from the home office of the Abbott Laboratories, Chicago, or by any of their branches or distributors. For further particulars regarding their purchase of the Dermatological Research Laboratories, the readers of this Journal are referred to the statement of the Abbott Laboratories on another page of this issue, entitled, "Important Announcement to the Medical Profession."

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OF THE

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DECEMBER, 1922

**Report Malpractice Threats
Immediately to Doctor F. B.
Tibbals, 1212 Kresge Bldg.,
Detroit, Mich.**

Editorials

THE END OF THE YEAR

The Publication Committee and Editors extend to our readers and advertisers their sincerest wishes for a joyous holiday season and a Happy New Year. May the festive season bequeath to you and yours a goodly measure of happiness and contentment.

Try as we may, the end of the year, will find us all with some hope unrealized, some activities incompleting and some disappointments that are difficult to reconcile. On the other hand there are many reasons for happiness and rejoicing. Life has not been all disappointments or all hardships. The holiday season should enable us to find anew life's true ideal and inspiration. It will if you but make the effort. We sincerely hope that this year the holiday season will bring to you these gifts:

May these be yours:

The Gifts that make the Dreamers into Doers,
The Gift to Work
Through Joy and Sorrow, Light and Murk,
To play, with all your soul and heart,
A manly part:
The Gift of Discontent, to keep you driving
Forward and up, forever striving
For something better in the days hereafter;
The Gift of Kindness and the Gift of Laughter,
And all the gifts of Love and Faith and Friends,
Of Justice and of Truth.
And in your heart, until Life's Journey ends
The Priceless Gift of Youth,
Hope that inspires, and Courage that endures,
May all these Gifts be Yours.

—From "Things As They Are."

EDUCATION OF THE NURSE

The report of the "Winslow Committee" on the problem of nursing education is worthy of careful study. The committee is made up of men and women of national reputation and their conclusions deserve our thoughtful consideration. The present methods in the education of nurses have been developed during a period of many years. It could not be expected that a small committee in a few months time would evolve a plan proposing so many radical changes in these methods which would be satisfactory to the great majority of those interested. The burden of proof is certainly put upon those who propose changes. The committee must expect criticism of their proposals.

The proposal to shorten the course of training from three years to 28 months should meet with rather general approval by the public and especially by physicians. There is a demand that bedside nursing be made more available to those who need it. It seems likely that this measure would produce more nurses to care for the sick, both at home and in the hospitals. A twenty-eight months course of *intensive* training with the emphasis on bedside work should be adequate preparation for the care of the seriously sick.

The plan proposed by the committee for the training and regulation of those designated in the report as "nursing aides" does not seem feasible. At least it does not seem that the plan suggested would go far toward the solution of the problem.

That there is a need for nurses of superior training to fill positions of responsibility, there can be little doubt. Almost every community is seeking for women of sufficient ability and of training to fill positions as superintendents and teachers in hospital training schools for nurses, and as directors of public health nursing. Is the proposed University Training School the best method of supplying this demand? The

plan seems to present certain grave defects. The committee has assumed that the five years course will exercise a selective as well as an educational function. This seems improbable. A five years training will make leaders only in the case of those who have a native capacity for leadership. Training cannot supplant personality. It would seem far more rational to select from those, who already have had the ordinary training, nurses of ability and capacity for leadership and give them whatever additional education and training may be necessary to fit them to fill positions of responsibility. Post-graduate work should be offered to those who may make the most of it. This is the method made use of in other professional training and has stood the test of time.

The committee further proposes that the University Training school shall be separate from, and of cognate rank with the medical school. It would seem very impractical to have two faculties in the same hospital independently caring for the same patients. As a matter of fact, we can see no reason why the committee should insist on such a school being independent of the school of medicine. The education of nurses has never been independent of physicians and in practice, never can be. Nurses must work with physicians in the care of the sick. The two professions are not independent and any plan which suggests any lessing of the spirit of co-operation cannot commend itself. On the whole, it would seem that the problem of educating leaders for the nursing profession might be solved in some more satisfactory way than that proposed by the committee.

J. R. J.

THE WAYNE COUNTY MEMBERSHIP DRIVE

Well planned, thoroughly organized, aggressive in activity and with a definite purpose of securing as members of the Wayne County Medical Society, every eligible doctor in that county, this drive was undertaken on October 10th and closed November 20th. There were four hundred eligible non-members. Under the direction of Dr. J. Albert Kinzey, Chairman of the Membership Committee, the securing of these applications is progressing satisfactorily.

In our next issue we propose publishing the result of the drive and how it was put over. We trust that it will be an inspiration to every county society to do likewise and by a systematically planned campaign secure the affiliation of all eligible doctors in their county. At present Wayne has 1,038 paid up members.

THE SHEPPARD-TOWNER LAW

For the past three years there has been an extended, and at times acrimonious, discussion in our medical journals of the Sheppard-Towner law and its provisions. Many resolutions have been passed condemning the law. At the St. Louis session of the American Medical Association this type of legislation was disapproved.

The publication committee of The Journal has not been disposed to enter into any discussion pro or con on the subject. It has felt that such discussion or expression of opinion should emanate from our membership and our House of Delegates. Space has been and will be available for such discussion.

The publication committee feels that at this time a statement should be made. It is making this statement at this time in order that it be freed from any charge or claim that your committee was negligent. In making this statement the committee contents itself with the setting forth of the situation that now presents in this state.

THE BILL

The Sheppard-Towner law was enacted by Congress. Its text is as follows:

An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated annually, out of any money in the Treasury not otherwise appropriated, the sums specified in section 2 of this Act, to be paid to the several States for the purpose of co-operating with them in promoting the welfare and hygiene of maternity and infancy as hereinafter provided.

Sec. 2. For the purpose of carrying out the provisions of this Act, there is authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, for the current fiscal year \$480,000, to be equally apportioned among the several States, and for each subsequent year, for the period of five years, \$240,000, to be equally apportioned among the several States in the manner hereinafter provided: PROVIDED, That there is hereby authorized to be appropriated for the use of the States, subject to the provisions of this Act, for the fiscal year ending June 30, 1922, an additional sum of \$1,000,000, and annually thereafter, for the period of five years, an additional sum not to exceed \$1,000,000; PROVIDED FURTHER, That the additional appropriation herein authorized shall be apportioned \$5,000 to each State and the balance among the States in the proportion which their population bears to the total population of the States of the United States, according to the last preceding United States census; AND PROVIDED FURTHER, That no payment out of the additional appropriation herein authorized shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State for the maintenance of the services and facilities provided for in this Act.

So much of the amount apportioned to any State for any fiscal year as remains unpaid to such State

at the close thereof shall be available for expenditures in that State until the close of the succeeding fiscal year.

Sec. 3. There is hereby created a Board of Maternity and Infant Hygiene, which shall consist of the Chief of the Children's Bureau, the Surgeon General of the United States Public Health Service, and the United States Commissioner of Education and which is hereafter designated in this Act as the Board. The Board shall elect its own chairman and perform the duties provided for in this Act.

The Children's Bureau of the Department of Labor shall be charged with the administration of this Act, except as herein otherwise provided, and the Chief of the Children's Bureau shall be the executive officer. It shall be the duty of the Children's Bureau to make or cause to be made such studies, investigations, and reports as will promote the efficient administration of this Act.

Sec. 4. In order to secure the benefits of the appropriation authorized in section 2 of this Act, any State shall, through the legislative authority thereof, accept the provisions of this Act and designate or authorize the creation of a State agency with which the Children's Bureau shall have all necessary powers to co-operate as herein provided in the administration of the provisions of this Act: PROVIDED, That in any State having a child-welfare or child-hygiene division in its State agency of health, the said State agency of health shall administer the provisions of this Act through such divisions. If the legislature of any State has not made provision for accepting the provisions of this Act the governor of such State may in so far as he is authorized to do so by the laws of such State accept the provisions of this Act and designate or create a State agency to co-operate with the Children's Bureau until six months after the adjournment of the first regular session of the legislature in such State following the passage of this Act.

Sec. 5. So much, not to exceed 5 per centum, of the additional appropriations authorized for any fiscal year under section 2 of this Act, as the Children's Bureau may estimate to be necessary for administering the provisions of this Act, as herein provided, shall be deducted for that purpose, to be available until expended.

Sec. 6. Out of the amounts authorized under section 5 of this Act the Children's Bureau is authorized to employ such assistants, clerks, and other persons in the District of Columbia and elsewhere, to be taken from the eligible lists of the Civil Service Commission, and to purchase such supplies, material, equipment, office fixtures, and apparatus, and to incur such travel and other expense as it may deem necessary for carrying out the purposes of this Act.

Sec. 7. Within sixty days after any appropriation authorized by this Act has been made, the Children's Bureau shall make the apportionment herein provided for and shall certify to the Secretary of the Treasury the amount estimated by the bureau to be necessary for administering the provisions of this Act, and shall certify to the Secretary of the Treasury and to the treasurers of the various States the amount which has been apportioned to each State for the fiscal year for which such appropriation has been made.

Sec. 8. Any State desiring to receive the benefits of this Act shall, by its agency describe in section 4, submit to the Children's Bureau detailed plans for carrying out the provisions of this Act within such State, which plans shall be subject to the approval of the board; PROVIDED, That the plans of the States under this Act shall provide that no official, or agent, or representative in carrying out the pro-

visions of this Act shall enter any home or take charge of any child over the objection of the parents, or either of them, or the person standing in loco parentis or having custody of such child. If these plans shall be in conformity with the provisions of this Act and reasonably appropriate and adequate to carry out its purposes they shall be approved by the board and due notice of such approval shall be sent to the State agency by the chief of the Children's Bureau.

Sec. 9. No official, agent, or representative of the Children's Bureau shall by virtue of this Act have any right to enter any home over the objection of the owner thereof, or to take charge of any child over the objection of the parents, or either of them, or of the person standing in loco parentis or having custody of such child. Nothing in this Act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose.

Sec. 10. Within sixty days after any appropriation authorized by this Act has been made, and as often thereafter while such appropriation remains unexpended as changed conditions may warrant, the Children's Bureau shall ascertain the amounts that have been appropriated by the legislatures of the several States accepting the provisions of this Act and shall certify to the Secretary of the Treasury the amount to which each State is entitled under the provisions of this Act. Such certificate shall state (1) that the State has, through its legislative authority, accepted the provisions of this Act and designated or authorized the creation of an agency to co-operate with the Children's Bureau, or that the State has otherwise accepted this Act, as provided in Section 4 hereof; (2) the fact that the proper agency of the State has submitted to the Children's Bureau detailed plans for carrying out the provisions of this Act, and that such plans have been approved by the board; (3) the amount, if any, that has been appropriated by the legislature of the State for the maintenance of the services and facilities of this Act, as provided in section 2 hereof; and (4) the amount to which the State is entitled under the provisions of this Act. Such certificate, when in conformity with the provisions hereof, shall, until revoked as provided in section 12 hereof, be sufficient authority to the Secretary of the Treasury to make payment to the State in accordance therewith.

Sec. 11. Each State agency co-operating with the Children's Bureau under this Act shall make such reports concerning its operations and expenditures as shall be prescribed or requested by the bureau. The Children's Bureau may, with the approval of the board, and shall, upon request of a majority of the board, withhold any further certificate provided for in section 10 hereof whenever it shall be determined as to any State that the agency thereof has not properly expended the money paid to it or the moneys herein required to be appropriated by such State for the purposes and in accordance with the provisions of this Act. Such certificate may be withheld until such time or upon such conditions as the Children's Bureau, with the approval of the board, may determine; when so withheld the State agency may appeal to the President of the United States who may either affirm or reverse the action of the Bureau with such directions as he shall consider proper; PROVIDED, That before any such certificate shall be withheld from any State, the chairman of the board shall give notice in writing to the authority designated to represent the State, stating specifically wherein said State has failed to comply with the provisions of this Act.

Sec. 12. No portion of any moneys apportioned

under this Act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings or equipment, or for the purchase or rental of any buildings or lands, nor shall any such moneys or moneys required to be appropriated by any State for the purposes and in accordance with the provisions of this Act be used for the payment of any maternity or infancy pension, stipend, or gratuity.

Sec. 13. The Children's Bureau shall perform the duties assigned to it by this Act under the supervision of the Secretary of Labor, and he shall include in his annual report to Congress a full account of the administration of this Act and expenditures of the moneys herein authorized.

Sec. 14. This Act shall be construed as intending to secure to the various States control of the administration of this Act within their respective States, subject only to the provisions and purposes of this Act.

Approved, November 23, 1921.

Under this law there will become available to Michigan some \$39,000 for the application of the intent of the law.

A number of states have accepted the provisions of the law. New York has declined. Massachusetts not only declined, but is testing the validity of the law in the U. S. Supreme court.

The following letter from the State Commissioner of Health is self-explanatory:

Dr. F. C. Warnshuis,
Secretary-Editor,
Michigan State Medical Society,
Powers Theatre Bldg.,
Grand Rapids, Michigan.

My dear sir: /

In reply to yours of October 21 and 24, I am sending you enclosed herewith a copy of the Sheppard-Towner Bill, which of course you have already received.

On January 12, 1922, the governor, at the earnest solitation of the organized women of the State of Michigan, accepted the provisions of the Sheppard-Towner Act and designated the Michigan Department of Health as the administrative agency in the state. By using the funds that this department had been using in the past, which were provided for in our appropriation for work along this line, we were able to match the total government appropriation as specified in the law.

If you will read this bill carefully, you will find that the method of procedure is not outlined in the bill; that it is left to each state to make its own plan, which shall be acceptable to the federal board. We outlined a plan which you will find in the July-August issue of Public Health, copy of which is enclosed, which plan was accepted by the federal board, and the work has been organized in this state along these lines.

The acquisition of this money will simply enable us to enlarge upon the work already ac-

complished by the Bureau of Child Hygiene and Public Health Nursing in this department, and you will note that the plan contains no features which have not been advocated as essential to well conducted infant and maternal health activities. The department hopes to reduce the infant and maternal death rates in Michigan by putting the people in closer touch with their physicians through a purely educational propaganda. Like all public health work, these activities will undoubtedly increase the practice of all the physicians in the state.

It would seem to me, if the Michigan State Medical Society intends to intelligently discuss the activities under the Sheppard-Towner Act, that they should first through a committee determine what those activities are to be.

If I am not mistaken, we, the medical profession of the state of Michigan, are going to encounter enough troubles during the coming winter, without gaining the animosity of as large a body of citizens as are intensely interested in the promotion of the activities under the Sheppard-Towner law.

Yours very truly,

Signed, R. M. OLIN,
Commissioner.

The following letter imparts the present attitude of the State Department of Health:

To Physicians and Health Officers:

All successful public health work is dependent upon the co-operation of the practicing physician. If the maternal and the infant death rates of Michigan are to be lowered, only the efforts of the medical profession can bring about these decreases in mortality. Realization of this fact is a principle underlying all the Michigan Department of Health plans for child hygiene work.

Through the reorganization in the Bureau of Child Hygiene and Public Health Nursing made possible by the Sheppard-Towner funds, increased service will be given the child under 5 years of age beginning with its prenatal life, which of course means greater attention to the pregnant woman and nursing mother. The importance of prenatal care is shown by the fact that 41 per cent of all deaths under one year are due to congenital causes, and approximately 37 per cent of all deaths under one year occur in the first month of life.

Both Michigan's infant mortality rate and puerperal mortality rate should be lowered. In 1920 Michigan had an infant mortality rate of 92 per 1,000 live births, that is, 92 babies under one year died to every 1,000 born alive, which placed us 17th down on a list of 23 states in the registration area. Oregon had the lowest infant death rate, 62 per 1,000 live births while the United States had an average rate of 86 per 1,000 live births.

In 1919 Michigan's maternal death rate was 7.7 per 1,000 live births. Wisconsin had the lowest rate 4.8 per 1,000 live births.

In a recent tabulation of birth records for 1921 in 55 counties and 30 cities in Michigan, we found there were 46,569 births. Of this number 44,025 were attended by physicians, leaving 2,574 which did not receive medical attention. The tabulation is not completed and may show when completed an even greater proportion of unattended childbirths. This lack of medical service at childbirth has a relation

to Michigan's infant mortality rate and the puerperal death rate. In the county having the highest infant death rate in 1921, 145.5 to 1,000 live births, 52 per cent of the mothers did not have a physician's service in childbirth. It is the aim of the Michigan Department of Health to educate the mothers to secure medical service at confinement and to keep their children under medical observation. This education to be carried on through infant clinics and prenatal and postnatal instruction.

We are especially stressing the importance of breast feeding. If breast feeding is not possible, we hope to assist mothers by instructing them in more intelligent feeding of babies. We have for this educational work divided the state into five public Health nursing districts with a resident nursing director in each district who will assist and advise county and other public health nurses. The women who have secured for nursing directors are experienced nurses. We expect through them to secure a greater efficiency in the public health nursing service of the state and an increased demand for medical service for infants and mothers.

We have added an infant clinic to the health institute with a full time experienced pediatrician in charge. No remedial work will be done and no treatment will be given at the clinic. All patients needing care will be referred to the family physician. The infant clinic will assist mothers in giving intelligent care and feeding to their children, thus lowering infant mortality.

The preschool child who has not been immunized against diphtheria by the use of toxin-antitoxin or against smallpox by vaccination will be referred to the family physician for immunization.

The department has no intention of undertaking work which belongs to the individual practitioner. I hope that physicians will report to me any attempts on the part of field workers or other members of this department to infringe upon their rights by treating their patients.

Respectfully,

Signed: R. M. OLIN, M. D.
Commissioner.

To continue to receive this assistance the coming legislature must, by a resolution or enabling act, accept and agree to comply with the Sheppard-Towner Act.

The publication committee does not propose to reprint all the arguments that have been advanced. Neither does the Committee intend to give personal expression of its collective or individual opinions. The committee feels it has acquitted itself of its responsibilities when it conveys to our members the information that this legislation is pending. It again announces that space is available for the discussion of the question by proponents as well as opponents.

Editorial Comments

The following are pertinent paragraphs. They contain much food for reflection. You rant about encroachment upon your practice. You decry the cults. You sob because your light is not perceived by the multitude. Read these paragraphs. Then appropriate the advice.

You have seen the picture of yesterday. Now let us consider that of today. The old man has slept away. In his place we have the allopath, the homeopath, the eclectic, the osteopath, the scientist—the chiropractor, the diagnostician and the

specialist—great institutions for the treatment of ills stud the nation—medical schools and colleges are yearly sending forth their product in increased numbers in advocacy of their teachings; state boards have been organized to protect the public and the profession; ambulance services hurry their emergency cases to the operating table or sick room; research laboratories enable the tracing of the bacteria to its darkest lair, while antotoxin works its havoc among them. Anesthetics and opiates have come to ease suffering, and stimulants to fan the fading fires.

The curtain is now raised on this new order of things. The automobile, fast trains, the telephone, telegraph and wireless now weld the most remote corners of the continent into one great whole. Magazines and newspapers read by millions daily spread their influence and play their part in shaping the public conscience. The Advertising Clubs of the World are organized to force truth in advertising, and their vigilance committees have been largely responsible for strong, constructive and protective enactments that have compelled higher standards and done much to eliminate unscrupulous advertising. Farmer Brown's cow for sale, today is found in the classified columns and the cure-all is not accepted by the great media of the country. Science, ingenuity and invention have all combined and wrought these wonders, but the lack of business acumen of the medical profession in meeting these modern conditions is stultifying its influence. Its passive acquiescence and adherence to a false ethics, is causing a drift toward dangerous shoals—where workmen's compensation and health insurance enactments loom large ahead and cast their threatening shadows before them.

There is no mightier force than an awakened public opinion, but public opinion does not arouse itself—it has to be awakened. The medical profession, living as it has within itself, satisfied with its conditions, governed by an antiquated ethics that has denied it its inalienable right to be heard—needs today a footing from without. It is not understood. It appears to many as suffering with pernicious anemia. The red corpuscles so necessary to the progress of our aggressive life of today cannot be increased by its self-inflicted treatment.

It has been my belief for several years that the recognized schools of medicine were doing nothing to offset the effect of the new and many times erroneous theories that are constantly being agitated; and as one by one they are securing a following, there has been no serious attempt by organized medicine to counteract it by showing the tremendous strides made by it, and the magnificent results attained.

The day is now, when any organization which has the welfare of its profession at heart must study the trend of the times, and recognize the mighty problems confronting it. With modern medicine the solution lies in a better understanding of it and its work by the body politic. The hermit may, within the walls of his hut, build great cities—but the pulsating world will never see them; he may have mastered his Blackstone, but as a governing influence he is not recognized at his town meeting. His voice is not heard.

Laws relating to the health of the people should naturally emanate from the medical profession. We have but to look over the vast number of statutes yearly enacted on the subject to see how many times its recommendations have failed, and sensationalists have guided the enactments; and how many times those whose wisdom should for the common good have prevailed, had little or no voice. There is something wrong with the law-

making bodies or the forces that control. To me, in this important matter, the burden is on your profession. If it were better understood by the public, its voice would be increasingly a factor in constructive health legislation that would ultimately redound to the betterment of the laws and the security and respect for the profession.

So great organizations have found and are more and more finding that their positions are strengthened by having their work better understood by their fellowmen, who, after all, constitute the court of last resort that has settled every great issue of the world's history.

The candidates for the presidency of the United States place their platforms and principles before the people by direct advertising appeals.

Great groups of industry are today telling their story to the nation in increasing numbers—the Dairymen's League, the Hotel Men's Association, the Long Island Duck Association, the savings banks, the railroads, the steamship lines, the United Hospital Association, and the great Inter-church and the Centenary Movements are among those now seeking public attention. Each group has been developed by some advertising agency, and religion, the forerunner of medicine and so closely affiliated to it, has found its use expedient.

Who, then, is he who stands and with himself communes!

Kings County Medical Society, standing as you do, so potential a factor in the health and welfare of this great municipality of which you are so important a part—a responsibility rests on your shoulders today. Your decision to tell the citizens of your country the great story of medicine, to direct them, as only you are qualified to do, in the better way of living, to point out preventative as well as the curative measures, may mean the breaking of a precedent, but it will certainly mean your entering into the spirit of the larger, the more forceful, and the more secure position to which you are entitled.

As one who for longer service seeks your advice, seek you such counsel as is most competent to direct. Go outside your profession—to other than yourself, and let him speak your language; let him advise with you as to when and where to speak; but for the security of medicine, that it may become an increasingly potent force making its influence felt on the life of the nation—

"Proclaim your cause throughout the land
unto all the inhabitants thereof."

"GUNNISON."

Apropos of the eternal question as to whether doctors should advertise and if so, what the nature of such advertising copy should be, we are reminded of the following incident that we heard or read somewhere:

A certain Dr. X, an internist, commenced to notice that a large number of hip cases were coming for consultation. These consisted of every type of hip joint involvement or disease. He asked a number of patients how they came to him as he was an internist. The reply would be that some friend or neighbor told them that he was a "hip doctor." Dr. X referred these cases to an orthopedist. As the cases continued to come in increasing number the orthopedist asked Dr. X. "Old Scott, where the H—, do you get all those hip cases. At you send to me?" All Dr. X could say was: "D—d, if I know, I've been trying to clear the mystery myself."

Finally one night, a colleague, came running in and said, "Come on, let's go down to the 'Hip' and see the prize fight." Like a flash the truth dawned

upon Dr. X. There outside Doctor X's office was a large electric sign which read "HIP," which was hanging right under Dr. X's modest sign. The Hippodrome, where the prize fight was to take place was down the street some distance and this abbreviated sign had been placed to direct the public. Dr. X believes in signs from now on and he is sure the public does too.

It pays to advertise—but how can a doctor limit it so that honest copy will characterize the ad? As we stated in the beginning—that's the eternal question. We trust this incident that we relate will not inspire our readers to place orders for electric signs.

What about a hundred per cent membership in your county? You can put it across if you but put forth the effort and in a systematic way conduct a canvass of your county. Wayne County is demonstrating how it may be done. Why not plan likewise in your county? Mr. President and Mr. Secretary, it is your opportunity if you but choose to grasp it.

While still thinking upon the subject of the training of nurses opposition to proposed unsatisfactory plans should be replaced by some constructive plan. President Dodge has proferred a satisfactory plan in proposing that a joint committee that will be representative of Training School officials, The Nurse's Registration Board and the medical profession be created. That this committee be charged with the duty of formulating an acceptable curriculum that will educate nurses so that they will be able to render satisfactory and competent service in all cases where nursing care is required. That this committee eliminate the educational frills and seek to attain the essentials that will give us nurses that are so needed in the hospital and the homes. That they formulate a method of examination that will certify to the public that these trainees are possessed of the required education.

If this can be brought about, much of the at present unsatisfactory situation will have been constructively corrected. Then attention can be turned toward the formulation of a plan that will provide for special work that will supply the needs of public health work. We sincerely hope that definite steps will be taken to bring about this solution of the nursing problem.

Scientific programs are essential features of our medical meetings. Scientific programs should not constitute the entire features of our county meetings. Several times a year a meeting should be devoted to the presentation and discussion of the business side of our work, to the consideration of our relationship to the public and to the manner in which free clinical work is made available. The existing conditions should be freely discussed and if undesirable policies are being continued, definite measures should be instituted to correct them. There is a pressing need for more frequent consideration of our contact with the public and its institutions. We suggest that program committees and officers formulate such programs for their local meetings.

"I take my pen in hand to let you know I am well and hope you enjoy the same blessing." For decades, the foregoing was the typical introductory sentence to letters of friendly correspondence. People recognized the value of health. To maintain and enhance it for themselves and friends they exerted themselves only to "hope." During the same

decades "hope comprised the total activity of a vast majority to maintain health. In a measure the same "hope" represents their efforts today. Just as soon as we can abolish this "hope" attitude of the public to questions and problems of public health just so soon will we witness a lowering of our mortality and morbidity statistics. To have health, to conserve health one has to do more than "hope."

A room fitted as a small laboratory, with the necessary chemicals and a microscope, will prove a better investment in the long run than an electrical cabinet, a new-fangled light or an icebox of vaccines.

The election is over. Probably our political friends will take heed and correct some of the political evils and procrastination that have characterized the achievements of many of our legislative bodies. Why not get busy and see that they do.

Again we request news items and county society reports. Please send them in. To include them in the current issue they should reach us not later than the 15th of each month.

Correspondence

The Editor of the Journal of the Michigan State Medical Society:

Be it Resolved: That the Houghton County Medical Society assembled in regular meeting on November 6, 1922, unanimously endorses the stand taken by the representatives of the Michigan State Medical Society at the conference recently held in Ann Arbor to consider the training of nurses.

Further be it Resolved, That the Houghton Medical Society emphatically disapproves the establishment of a separate department in the University Hospital for Nurses' training, and

Be it further Resolved, That the Houghton County Medical Society demand the immediate restoration of the control of the University Hospital and the nurses' training school to the faculty of the Medical School, and be it further,

Resolved, That the Houghton County Medical Society resent the political and mercenary activities of those directing the policies of the nursing profession of Michigan.

Houghton County Medical Society,
A. D. ALDRICH, Secretary.

The Editor of the Journal of the Michigan State Medical Society:

At the meeting of the Regents of the University held here October 27, the resolutions adopted by the Council of the State Medical Society and the Medical Faculty attending the conference on Nursing Education, held in Ann Arbor September 20, were received and placed on file. You may be assured that in the final settlement of this problem this action of your council will receive the proper consideration.

Very truly yours,
S. W. SMITH, Secretary.

Deaths

Doctor Wadsworth Warren was born in Elk Rapids, Michigan in 1865 and died in Detroit, October 22, 1922. He graduated from Olivet College, receiving the degree of A. B. Later he received from

the same institution an A. M. In 1889 he graduated from the Medical Department of the University of Michigan. He took post-graduate work in Vienna and Heidelberg.

Doctor Christ Theodoroff of Detroit was born in 1875 in Bulgaria and died August 11, 1922. He graduated from Washington University Medical School in 1909.

The death of the following doctors, not members of the Society, have been reported: Dr. Charles M. Raynale, Dr. Gilbert P. Johnson, Dr. John A. Beall, Dr. Oliver H. Lau.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

Doctors J. T. Case, E. W. Eggelston and M. A. Mortenson of Battle Creek attended the prize fight at Grand Rapids Nov. 10.

Dr. M. A. Mortenson of Battle Creek, sailed for Europe Nov. 20 for a visit to European clinics.

Doctors Russell Rowland, C. H. Epman, B. R. Hoobler and W. U. Braley of Detroit attended the meeting of the Central States Pediatric Society, held in Cincinnati Oct. 16 and 17.

Dr. James E. Davis of Detroit was elected secretary of the American Association of Obstetricians Gynecologists and Abdominal Surgeons at the annual meeting recently held in Albany.

The second annual conference of Health Officers and Public Health Nurses will be held in Lansing Dec. 4-8, under the direction of Commissioner Olin.

Dr. W. A. Giffin of Deckerville has returned from a two months' tour of Europe. The doctor was a member of the second American Legion tour.

F. O. Logic, a Chiropractor of Iron Mountain, was arrested and found guilty of illegal practice.

Doctors J. R. Rogers, H. S. Collisii and E. W. Schnoor of Grand Rapids were admitted to American College of Surgeons at the Boston session.

Dr. Harold Wilson read a paper at the Detroit Athletic club, on "The Physical Examination of the Ear," before the Detroit Ophthalmological and Otological club, Nov. 1, 1922.

The following officers were elected, Oct. 25, 1922, at the annual meeting of the Detroit X-ray and Radium Society: President, Dr. R. E. Loucks; Vice President, Dr. J. G. Stone, and Secretary-Treasurer, Dr. H. P. Doub.

Dr. Frank Lodge gave a talk on "Malpractice" before the Detroit West Side Physicians' Association, Oct. 12, 1922.

The new medical center of Columbia University Medical School and the Presbyterian Hospital of New York comprises more than 20 acres. It extends between 156 and 158 streets from Broadway

to the Hudson river, (valued at \$4,000,000). \$1,300,000 has been transferred to Columbia University for the endowment of educational and scientific work in the School of Medicine and the Presbyterian Hospital. An additional \$1,000,000 has been given toward the construction of the new Presbyterian Hospital and \$1,000,000 for the School of Medicine. Mrs. Stephen V. Harkness and Mr. Edward J. Harkness are the donors of the above.

Dr. Louis Newburgh of Ann Arbor gave a talk at the Fifth annual meeting of the American Dietetic Association, held in Washington, October 16-19, 1922.

Dr. W. W. Keen of Philadelphia received Oct. 25, 1922, from the Boston Surgical Society, the second Henry Bigelow Medal. The first medal was awarded to Dr. William J. Mayo.

Dr. A. F. Jennings read a paper on "Review of Therapy of Diabetes," before the Detroit Academy of Medicine, Nov. 7, 1922.

Dr. William A. Evans delivered an address before the Detroit Otolaryngological Society, Nov. 15, 1922, on "The Value of the Roentgen Study of Mastoid Diseases in Children Under Five Years."

Dr. Cyril K. Valade of Detroit was married, Oct. 5, 1922 to Miss Marion I. Anderson.

The Third Annual Series of Post-Graduate Lectures began at the Woman's Hospital, Detroit, Nov. 10, 1922. These lectures will be given by Doctors Harry Schmidt, H. W. Plaggemeyer, Raymond Hoobler, Max Ballin, James E. Davis, J. H. Hathaway and C. Hollister Judd.

The Jefferson Clinic provided a symposium on Blood Transfusion for the Detroit East Side Physicians' Association, Nov. 2, 1922. Dr. MacNaughton gave the historical side of the subject; Dr. Blaine, the indications; Dr. Brines, the technic and demonstration, and Dr. Bemis, the resume of results.

The Detroit Ophthalmological and Otological club will hold a clinical meeting, Dec. 6, 1922.

Dr. Stanhope Bayne-Jones of Baltimore has been appointed Professor of Bacteriology and Dr. George W. Corner of Baltimore, Professor of Anatomy, in the University of Rochester Medical School of New York. They will assume their duties Sept. 1923.

Dr. James Ewing of the Cornell Medical School delivered the 1922 Mutter Lecture on surgical pathology before the College of Physicians of Philadelphia, Nov. 1, 1922. His subject was "The Principles of the Radiation Treatment of Cancer."

Dr. T. B. Cooley of Detroit was recently elected President of the Central States Pediatric Society, Detroit was selected as its meeting place for 1923.

Dr. Walter E. Welz and Dr. Robert Tapert returned to Detroit last month from a two months' trip to Europe.

More than 150 Detroit physicians gave four minute talks in the moving picture houses in Detroit during "Cancer Week," (Nov. 5-11, 1922). Dozens of factory groups were addressed. Literature was distributed through the schools. Flaring posters, moving pictures, the radio, newspaper articles, factory organs, health bulletins, were used in the war on

this disease. Every hospital in Detroit gave a free clinic daily, where skilled diagnosticians lent their advice and aid to suffering humanity. Dr. Reuben Peterson of Ann Arbor was State Chairman of the Cancer Week Campaign, Dr. Fred T. Murphy, Regional Chairman; Dr. J. W. Vaughan, Chairman of the Wayne County Medical Society's Cancer Commission; Dr. F. M. Meader, Chairman of the Lecture Bureau, and Dr. H. C. Saltzstein, Secretary of the local committee of the American Society for the Control of Cancer.

Dr. Harry B. Dibble of Detroit was elected a Fellow of the American College of Surgeons, at its annual convocation, held in Boston, Oct. 27, 1922.

Dr. J. M. Sutherland recently returned to Detroit after a year spent in study abroad.

Dr. G. Van Amber Brown of Detroit was elected First Vice President of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, at the annual meeting, held recently in Albany, N. Y.

The Blackwell Medical Society of Detroit gave a dinner, Oct. 17, 1922 to the women physicians attending the American Prison Conference.

Dr. Guy L. Kiefer and Dr. R. M. Olin attended the 51st annual meeting of the American Public Health Association, held in Cleveland, Oct. 16-19, 1922.

Henry F. Vaughan, Health Commissioner of Detroit, was elected First Vice-President of the American Public Health Association, Oct. 1922.

It is reported that students from the Chicago Medical School will not be accepted for examination for license to practice medicine in Illinois by the Illinois Department of Registration and Education.

Dr. and Mrs. Frances Duffield of Detroit announced recently the engagement of their daughter, Frances Pitts, to Mr. Alger Sheldon, also of Detroit.

The October 23rd meeting of the Wayne County Medical Society was given over to the entertainment committee. Mr. William Judson Tibby talked on character analyses and psychology.

Dr. Storey of Detroit talked on the proposed plans of the Committee on Public Education of the Wayne County Medical Society before the Highland Park Physicians' club, Oct. 5, 1922.

Dr. Angus McLean read a paper on "Metastases" before the Detroit East Side Physicians' Association, Oct. 1922.

About 15 interesting cases were shown before the Detroit Dermatological Society, Oct. 17, 1922.

The Detroit Surgical Society held its first meeting since summer at Ann Arbor, Oct. 27, 1922. Doctors Cabot and Peterson gave clinics at the University Hospital. Following a dinner at the Michigan Union, Dr. G. C. Pemberthy of Detroit read a paper on "Fractures."

The Detroit Academy of Surgery met Oct. 13, 1922. Dr. N. M. Allen read a paper on "Gastric Fibroma and Meningocele;" Doctors R. C. Moehlig and E. C. Minor, on "Syphilis of the Stomach," Dr.

David Kallman, on "Blood Counts in Goitre," and Dr. H. C. Saltzstein, on "Anterior Abdominal Tenderness in Sacro Iliac Strain."

Dr. R. L. Novey read a paper on "Paroxysmal Tachycardias" before the Detroit East Side Physicians' Association, Oct. 19, 1922.

Dr. and Mrs. Leo Donnelly of Detroit announce the birth of a daughter, October 15, 1922.

A joint meeting of the American Prison Physicians with the Wayne County Medical Society was held in Detroit, Oct. 16, 1922. Dr. V. C. Vaughan spoke on certain phases of criminology and Dr. Bernard Glick of New York, on "The Relation of Psychiatry to Criminology." Dr. Adolph Meyer of Baltimore was on the program, but was unable to attend.

Dr. H. M. Rich read a paper on "Proteid Sensitization, Its Significance and Tests," before the Detroit Section of the American Chemical Society, Oct. 18, 1922.

Mr. Hugh W. Hitchcock, son of Dr. and Mrs. C. W. Hitchcock of Detroit, was married, Oct. 19, 1922, to Miss Charlotte Wiley of Detroit.

Dr. Gilbert E. Seaman of Milwaukee was elected First Vice-President of the Association of Military Surgeons of the United States at its annual meeting, held in Washington this fall. Dr. Seaman graduated from the Michigan College of Medicine and Surgery in 1889.

At the Annual Encampment of the Grand Army of the Republic, held in Des Moines, Iowa, Sept. 28, 1922, Dr. George T. Harding of Marion, O., father of President Harding, was elected Surgeon-General of the G. A. R.

The group of buildings on Hamilton Ave., known formerly as the Herman Kiefer Hospital, is now, by action of the common council, known as the Detroit General Hospital. The contagious pavilions form the Herman Kiefer group.

The Detroit Department of Health was recently authorized to construct another unit to the Detroit General Hospital, to provide 250 beds for tuberculous patients, \$1,000,000 is to be spent for a new power plant and a tunnel system for heating purposes.

Dr. H. A. Reye recently read a paper on "Suggestions on Giving Suggestions," before the Detroit East Side Physicians Association.

At the meeting of the Wayne County Medical Society, held Sept. 18, 1922, Dr. Walter P. Manton was elected a Honorary Member of the Society.

The Surgical Section of the Wayne County Medical Society recently elected Dr. Harry C. Saltzstein, chairman and Dr. C. L. Straith, secretary.

Dr. and Mrs. C. D. Brooks of Detroit announce the birth of a daughter, Mary Elizabeth, Oct. 2, 1922.

Dr. B. C. Lockwood of Detroit read a paper on "Diabetes," before the Genesee County Medical Society, Oct. 4, 1922.

The staff of Butterworth Hospital, Grand Rapids, composed of 36 doctors, underwrote a subscription of

\$30,000 to the building fund of the new hospital. Work on the erection of this new million dollar hospital will be started in January.

Mrs. Clara B. Yates, wife of Dr. Albert Yates of Washington, Mich., died November 10, 1922.

As we go to press, the Chairman of the Wayne County Membership Campaign, reports that they have secured 110 new applications for members. Good work. The campaign has ten days to go.

County Society News

ACADEMY OF SURGERY OF DETROIT

The first regular meeting of the Academy of Surgery was held in the new office building of Doctors Ballin, Haas, Allen and associates at 269 Rowena Street on October 13, 1922. Vice President Alexander W. Blain in the chair. The following program was presented:

"Femoral Aneurism," (demonstration of case). Dr. Grover Pemberthy.

"Syphilis of Stomach," Dr. Robert Moehlig and Dr. E. G. Minor. Discussion, Doctors Shawan and Moehlig.

"Gastric Fibroma," Dr. Norman Allen. Discussion, Doctors McMillan, Charles Kennedy, Moehlig and Allen.

"Blood Counts in Goiter," Dr. David Kallman. Discussion, Doctors Haas and Shawan.

"Anterior Abdominal Tenderness in Sacro-Iliac Strain," Dr. H. C. Saltzstein. Discussion, Doctors Cassidy, Hirschman, Kelly, Randall, Walker, Meyers, McMillan, Pemberthy and Saltzstein.

President Dr. Max Ballin addressed the Society, making the following recommendations:

(1) That the membership should be raised and more of the younger men in surgery admitted to the Society.

(2) That the transactions of the Society should be published in an official journal.

(3) That the committee appointed to meet the committee of the Detroit Surgical Society, meet at an early date with the hopes of an early amalgamation of the two societies.

The following resolution was presented and unanimously carried:

WHEREAS, Dr. Theodore Alexander McGraw, by his great ability as a surgeon, his untiring zeal and his accomplishments in the field of medical science and education, and his contribution to the alleviation of the sufferings of humanity, was a credit to the City of Detroit and one of her most distinguished citizens, and

WHEREAS, It is fitting that a suitable memorial be established to perpetuate his memory and as a mark of recognition and appreciation of his great service,

BE IT RESOLVED, That the Academy of Surgery of Detroit sponsor a movement to erect a monument to the memory of Dr. Theodore Alexander McGraw either in Grand Circus Park or on Belle Isle, through a fund to be raised by popular subscription of the citizens of Detroit, and,

BE IT FURTHER RESOLVED, That a committee of four members of this organization, to consist of the president and three other members to be named by him, be appointed for the purpose of adopting the form and design of such a memorial, formulating plans to raise the funds necessary to purchase and erect same, installing and presenting

it with suitable ceremonies to the City of Detroit, with full power to act in all matters necessary to carry the project to completion.

The president appointed Dr. Alexander W. Blain, Dr. Angus McLean, Dr. Frank B. Walker and Dr. Max Ballin, a committee to carry out the provisions of the Society.

IRA G. DOWNER, Secy, Pro-tem.

MONTCALM COUNTY

The annual meeting of the Montcalm County Medical Society was held at the Winter Inn, Oct. 25, 1922, at 7 o'clock P. M.

A complementary dinner was given the members by the retiring President Dr. W. H. Lester.

Dr. Muriel Wells of Grand Rapids gave a splendid address on "Chronic Disease of Gall Bladder," which covered the subject thoroughly from the standpoint of embryology, anatomy, pathology and medical treatment.

Dr. Richard Smith of Grand Rapids gave a most instructive and timely address on "Chronic Gall Bladder Diseases from the Surgeons Standpoint."

Motion made by Dr. E. R. Swift, seconded by Dr. J. O. Nelson that Dr. A. J. Bower be appointed as a committee of one to take such steps as may be necessary to bring about an amalgamation of this Society and the Ionia County Society. Carried.

Delegates to State meeting appointed by President; Dr. E. R. Swift, Dr. L. E. Bracey.

Motion made by Dr. Swift, seconded by Dr. J. O. Nelson that a motion made at last meeting placing on table a request by Dr. L. E. Kelsey that the society except his resignation, be taken from the table and released. Carried.

President W. H. Lester appointed as nominating committee, Dr. A. J. Bower, Dr. J. A. Duncan, Dr. George E. Horne.

President, Dr. L. E. Bracey; Vice President, Dr. J. R. Hansen; Secretary-Treasurer, Dr. F. A. Johnson.

Motion made by Dr. A. J. Bower that honorarium of \$10.00 be given the secretary. Seconded by Dr. J. R. Hansen. Carried.

Motion made by J. O. Nelson that record of meeting be published by State Journal, seconded by Dr. A. J. Bower. Carried.

It was reported by Dr. J. R. Hansen that the legal action voted at the last meeting against Mrs. Maud Blood, chiropractor for practicing without a license resulted in the court ordering a fine of \$125 and the immediate discontinuation of her practice.

The following resolution was made by Dr. E. R. Swift, seconded by Dr. J. R. Hansen, unanimously carried:

Resolution adopted by Montcalm Society.

WHEREAS, There is a movement on float to establish a separate department in the University Hospital for the training of nurses, therefore, be it

RESOLVED, That the Montcalm Medical Society is opposed to permitting the divorcement of nursing from the medical profession by the creation of a separate department of nursing training at the University. We believe that the nursing profession and the medical profession should continue as in the past, in perfect harmony.

RESOLVED, That we also respectfully request the Board of Regents to place the University Hos-

pital and the training school for nurses back under control of the faculty of the medical school, where it has always been until changed by the exigencies of the late war.

RESOLVED, That we are opposed to the proposal of the Winslow committee that a course of instructions of nine months for training a practical nurse be founded. We favor four months of probation, followed by two years of hospital instruction.

RESOLVED, That a copy of these resolutions be forwarded to the President of the University and each member of the Board of Regents.

F. A. JOHNSON, Secretary.

MECOSTA COUNTY

Mecosta County Medical Society and the Big Rapids Exchange club met in joint session at the Western Hotel, at 7 P. M., October 20. After being served with a bountiful dinner, Dr. Poole of the State Board of Health addressed the members of both Societies, following which there was a brief intermission.

In the absence of the President, Vice President Miller called the meeting to order. The following program was given: Stella B. Roben, president of the Woman's Club, told of the activities of the club also of the work of the Red Cross during war and after. Edith Ennis, city school nurse, presented the subject of "Separate Training for Nurses in the University of Michigan." Dr. W. T. Dodge discussed Miss Ennis' paper and proved to all present that such a course was impracticable and a detriment to the University and Medical profession of the state as well as to the nursing profession, arguing that the two professions cannot be separated without bringing disaster to both.

Dr. R. M. Olin, Commissioner of Health, was the next speaker. He also disapproved of the proposed separate nurses course. Dr. Olin enlightened the members on the work being done by his department.

Dr. W. T. Dodge presented the following resolutions:

RESOLVED, First, That the establishment of a separate department in the University Hospital for nurses training is disapproved.

Second; That the conduct of the University Hospital and the nurses training school shall be again in charge of the faculty of the Medical School, where it has always been until hanged by the exigencies of the late war.

Moved by Dr. Lynch, supported by Dr. Campbell that the above resolutions be adopted. Carried unanimously. Every member of the society present, voting in favor of the resolutions, all members being present except two.

The Society was entertained by Doctors Burkart, Yeo and MacIntyre.

The following guests from the State Health Department were present: Dr. R. M. Olin, Commissioner of Health; Doctors Poole, Rose, Burk, Brown and Nurses Nichols and Fountine; Dr. Brooks, Member State Board of Medical Examiners, and Dr. W. J. Conover, Evart, Mich.

Motion to adjourn was carried.

D. MACINTYRE, Secretary.

Book Reviews

LECTURES ON DIETETICS. By Max Einhorn, M. D., Emeritus Professor of Medicine at the New York Post-graduate Medical School and Hospital; Visiting Physician to the Lenox Hill Hospital, New York. 12mo of 244 pages. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$2.25 net.

This text is based upon the author's lectures on dietetics in the New York Post Graduate Medical School. Nine new chapters have been added to those of the first edition, as follows: Care of Digestion; Care of the Digestion for the Soldier; Dietetic and Allen Treatment of Diabetes; Diet Management in Gout, Diseases of the Kidneys, Operative Cases; Subcutaneous and Rectal Alimentations; Indications for Artificial Nutrition and the Preparation of Food for Invalids.

The manual is a decided contribution to the application of approved principles of feeding and nutrition. It is an acceptable aid to every doctor.

CLINICAL MEDICINE, Tuesday Clinics at the Johns Hopkins Hospital. By Lewellys F. Barker, M. D., L. L. D., Professor of Medicine, Emeritus, Johns Hopkins University; Visiting Physician to Johns Hopkins Hospital, Baltimore, Md. Octavo of 617 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$7.00 net.

The student and practitioner know Dr. Barker. A text by him immediately commands attention. A clinical Text imparting his discussions and observations at his Tuesday clinics at Johns Hopkins, arouses our intense attention and interest. This Volume I of this series is indeed wonderful and extremely instructive. It will meet immediate favor by every doctor. It must be placed in their hands. One is loth to lay the volume aside.

Dr. Barker discusses, during the presentation of these cases, the full details regarding diagnosis, differential diagnosis, laboratory tests, etiology prognosis and treatment. It is by far the most valuable text this year. We are pleased that it is available to the profession.

THE TREATMENT OF FRACTURES, With Notes Upon a Few Common Dislocations. By Charles L. Scudder, M. D., Assistant Professor of Surgery at the Harvard Medical School. Ninth Edition, Revised. Octavo volume of 749 pages, with 1252 illustrations. Philadelphia and London, W. B. Saunders Company, 1922. Polished Buckram, \$8.50.

More than six years have elapsed since the issuance of the last edition of this standard text on fractures. Since which several changes have been introduced in the principles and procedures of treatment.

This Ninth edition brings the text abreast of the times and thereby again assures the distinguished position it has held in the literature and text on fractures. Its contents merits the studious consideration of every man who is called upon to attend those who have sustained fractures. This text is the most valuable guide we know.

DISEASES OF WOMEN. Harry S. Crossen, M. D., F. A. C. S., Washington University. Fifth edition, cloth, 1001 pp. Price \$10.00. C. V. Mosby Co., St. Louis, Mo.

By revision which entailed rewriting of many chapters, new illustrations and added bibliography and references, this text has thoroughly been

brought up to date. X-ray and Radium in the treatment of diseases of women has been comprehensively discussed.

As we have commented on previous editions this text of diagnosis and treatment of diseases of women represents the teaching and principles of the present day. As such it is a most valued text. It is a text meriting our every praise. It is of tremendous value to every doctor. It should be in the library of every medical man. We commend it without hesitation.

THE EVOLUTION OF PUBLIC HEALTH NURSING.

By Annie M. Brainard. Editor of "The Public Health Nurse," Lecturer on Administration of Public Health Nursing in Western Reserve University. 12mo of 454 pages, illustrated. Philadelphia and London; W. B. Saunders Company, 1922. Cloth \$3.00 net.

For one desirous of learning the evolution of public health nursing, this text imparts a comprehensive review. We are not in accord with all that the authoress concludes.

A MANUAL OF PHARMACOLOGY AND ITS APPLICATIONS TO THERAPEUTICS AND TOXICOLOGY.

By Torald Sollmann, M. D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Second Edition, Entirely Reset. Octavo of 1066 pages. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$7.00 net.

Arrangement. Two sizes of type have been used throughout, the larger print giving a connected and concise statement of the essentials of pharmacology, the smaller type containing more detailed data for consultation.

Plan. To those drugs that are really and generally used extensive consideration is given. The new drugs and remedies are emphasized with definite instructions for their use.

Prescription Writing. This section is simple, easily understood, and will fully equip the student for the correct writing of prescriptions.

References, especially to recent literature, are numerous and of valuable assistance. There is an extensive bibliography of 59 pages.

The Appendix, in addition to the extensive bibliography, contains a tabulation of average doses classified with reference to their importance and a check-list of important preparations.

Newness. The revision for the second edition, published February 1922, was unusually heavy, the book being reset from cover to cover. Important additions and changes have been made to every part of the text.

ANIMAL PARASITES AND HUMAN DISEASE. By Asa C. Chandler, M. S., Ph. D. Instructor in Biology, Rice Institute. 572 pages, 6 by 9. 254 clearly reproduced figures. Cloth, \$4.50 postpaid. John Wiley & Sons, Publishers, New York City.

This book was written primarily for the general public, on a subject about which there is a popular lack of knowledge. An attempt has been made, as far as possible, to avoid technical phraseology, and to omit lengthy descriptions and minute differentiations, which would lessen its value to the lay reader.

Special emphasis has been laid on the biological and practical aspects of the subject, and particular attention is paid to the effects of parasites on their human hosts, either directly as parasites or as dis-

ease—transmitting agents—to their life histories—to their means of dissemination—and to the proper methods of treatment and prevention. The important facts are made available for the non-scientifically trained person who is interested in human health and its maintenance.

In addition, it is a book of prime importance to physicians, public health officers, and nurses, particularly those engaged in public health work, since it gives them the essential facts concerning parasitic diseases in such a way that the principles underlying their control can be fully understood and intelligently followed out.

As a text or reference book, it is well adapted for courses in parasitology, in the medical and pre-medical curriculum.

All school officials and school teachers, particularly in rural districts, should have a copy of this book, with its wealth of information of vital importance, on hand for constant reference.

This new edition brings the work thoroughly up to date in its field.

Some of the more important changes and additions:

1—Recent work on yellow fever, which has necessitated the shifting of this subject to the chapter on spirochaetes.

2—An account of the Rickettsia-like organisms, and their probable relation to Typhus fever, Trench fever, Rocky Mountain Spotted fever, etc.

3—An entire revision of the chapter on Amebae, and the greater part of the chapter on Intestinal Flagellates and Ciliates.

4—New methods of examination for eggs of parasitic worms.

5—New methods of controlling fluke diseases.

6—An account of Trench fever, and the work done on it by the American and British Commissions.

7—New facts concerning the life histories, treatment, etc., of numerous parasites and parasitic diseases, e. g., human liver and intestinal flukes, fish tapeworm, itch mites, etc.

8—Discussions of many parasites and diseases not mentioned in the first edition.

AN OUTLINE OF THE PIRQUET SYSTEM OF NUTRITION. By Dr. Clemens Pirquet, Professor of Pediatrics at the University of Vienna, Austria. 16mo of 96 pages. Philadelphia and London, W. B. Saunders Company, 1922. Cloth, \$2.00 net.

This English compilation of the author's system of nutrition is based upon the Silliman Lectures at Yale in 1921-1922. In addition it contains a complete bibliography covering the year 1917-1922. It also imparts the new value of food and a table of Pelidisi Indices.

It is of extreme assistance to the active man because it enables him to correctly apply the better principles of feeding and nutrition.

PHYSICAL DIAGNOSIS. W. D. Rose, M. D. University of Arkansas. Third edition, 755 pp. Price \$8.50. C. V. Mosby Co., St. Louis, Mo.

In the revision of this edition the section dealing with the circulatory system has been entirely rewritten. Likewise the chapter on blood pressure has been entirely rewritten.

With this revision the text fulfils its mission as an authentic aid to the student and busy practitioner. It imparts the essentials and the practical in physical diagnosis. The splendid illustrations materially enhance the well written text and add to its value.

BRONCHOSCOPY AND ESOPHAGOSCOPY. Chevalier Jackson, M. D., Professor of Laryngology, Jefferson Medical College, Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania. Octavo of 346 pages with 114 illustrations and 4 color plates. Philadelphia and London; W. B. Saunders Company, 1922. Cloth \$5.50 net.

This book is based on an abstract of the author's larger work. It is an excellent presentation of the various purely manual endoscopic procedures. Clear in descriptive text, splendidly illustrated, definitely setting forth the difficulties and dangers, distinctly describing the points that enable one to execute the procedure by emphasizing certain important rules for each operation, the end sought by the author has been admirably attained.

It is a text that will be extremely welcomed by all who undertake to do a bronchoscopy or esophagoscopy. In fact it is a text they cannot afford not to possess. The publishers are to be congratulated upon the splendid illustrations, many of which are in color.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. J. J. R. Macleod, M. B., University of Toronto. Fourth edition, 987 pp. Price \$11.00. C. V. Mosby Co., St. Louis, Mo.

This text, in view of the developments in medicine and surgery, is an important one in the library of every medical man. Especially the biochemistry of life and disease is a field that the modern doctor must consider in his daily work.

We know no text that imparts so comprehensively the available and applicable information as does this text. We congratulate author and publisher for giving us so valuable a text.

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